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*Professorship and Gender at Austrian
Universities – An Analysis of Gender-specific
Differences among Female and Male
Professors*

AND

*Work Situation and Career Perspectives of the
Junior Faculty in Austria*

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About the Project

The normative concept of gender equity which exists in European societies is contrasted by a reality in which women in top-level positions are by no means a common occurrence.

Against this background, the European Research Training Network Women in European Universities, funded by the European Commission, is a joint research project of partners in seven European countries.

Its scientific programme aims at assessing the professional status of women in academia and at analysing the reasons for the under-representation in positions of authority in European Universities.

The network structure includes regular conferences and meetings to provide a forum to present outcomes, exchange knowledge and to discuss about research planning as well as findings and outcomes.

The **Training Paper Series** are essays authored by the doctoral students of the project in every research phase. They give an introduction to the research topic and an overview of the findings in the research country of the doctoral student.

ABSTRACT

Despite efforts to reach equality between women and men, the gender-specific segregation of the systems of higher education still persists throughout Europe. Against this background, the Research Training Network "*Women in European Universities*" seeks to investigate the reasons for the disparity among female and male academics. This paper is the result of the third working phase of the network. It represents the major findings of a comprehensive survey conducted among 84 woman professors and a comparative group of 70 man professors in Austria. A lot of information on the academics' social and professional characteristics as well as an overview of their career paths are given. In some cases, the divergences between the female and the male respondents are rather marginal which is most likely due to the selection criteria of the contrast group. In other cases, the findings confirm results from other research studies (e.g. that woman professors are more likely to be single than their male colleagues) and show differences between the experiences and the situation of woman and man professors. Furthermore, the paper is analysing several basic assumptions regarding possible explanations for the under-representation of women among the higher ranks of the academic hierarchy. Altogether, it provides an extensive overview on the gender relations among university professors and as such points out new questions for research and further action.

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1. Introduction

The major issues in Austrian higher education policies today are marketisation and change of the academic curriculum (e.g. the introduction of bachelor programs). Student fees were reintroduced in 2001 and the organisation of the universities is currently profoundly restructured. Yet, with all these changes in the foreground of the political debate it is important to recognise that the gender relations at Austrian universities are very unbalanced. Despite some rise in numbers, women are clearly under-represented particularly at higher academic positions. Today, they account for only 6.8% of all university professors in Austria (BMBWK 2002b: 104). Additionally, the number of women in top management positions is very low as well. Besides this vertical segregation, the share of women in certain disciplines such as engineering and technology is marginal whereas it is relatively high in the social sciences and humanities.

As these conditions are similar throughout Europe the Research Training Network "*Women in European Universities*" seeks to analyse the situation of woman academics in seven countries and tries to find explanations for the disparity in higher education by applying different methods.¹ So far, a contextual study and a statistical profile of the Austrian higher education system provide a first overview of the developments over time and of the recent situation. Besides supplying information on the horizontal and vertical segregation of the academic hierarchy, the papers show that despite prevailing traditional foundations new market-oriented demands become increasingly important in higher education policies. Since these are rather recent developments it was not possible to conclude if they will have any gender-specific consequences (Poulsen 2002; Poulsen 2001).

In the present phase of the project, the experiences of woman and man professors are evaluated by means of a comprehensive survey. The major aim is to find out whether or not the female academics made dissimilar experiences during the turn of their career and are facing a different situation at university than their male colleagues. As a research instrument, a standardised questionnaire was developed by the participants of the network and afterwards used in the different countries.² For Austria, it was decided to survey the total population of woman professors as their number is relatively low. In addition, a

¹ The seven participating countries are Austria, France, Germany, Great Britain, Poland, Spain and Sweden. For further information on the network see <http://www.women-eu.de>.

² At this point, the author would like to thank Anett Schenk for providing the necessary information on the development of the questionnaire.

comparable group of man professors was interviewed as well. Therefore, a list of contact numbers was provided by the Ministry of Education, Science and Culture and supplementary addresses were collected by Jessica Bösch and Tanja Kreetz who are members of the network. The survey was carried out by the Sozialwissenschaftliches Umfragezentrum GmbH at the University of Duisburg, Germany. This social research centre used mostly telephone interviews to collect the records and provided an electronic database for further analysis.

The findings of the survey are presented in this paper, which is structured into five main parts. The first illustrates the state of the art regarding the research on women in academia. Here, I will mainly refer to studies conducted in Austria but I will add relevant information from other research in case additional information is required. This serves as a general introduction to the topic as well as a background for some underlying assumptions concerning gender relations at Austrian universities. The following chapter gives an outline of the methodological approach of the present study. It provides details on the survey, the structure and content of the questionnaire, its population as well as the process of data collection and also gives a response summary. In the subsequent part, demographic information on the respondents and their career paths are presented to give an overview of the experiences and the current situation of the academics. Since the aim of this paper is not only a descriptive representation of their major characteristics but also an analysis of the under-representation of female academics on the higher levels of the hierarchy the next section of this paper analyses whether or not the basic assumptions that were developed in the first chapter can be supported by the findings of the survey. Finally, the last part summarises the main results and gives some recommendations.

2. State of research and basic assumptions concerning gender relations at Austrian universities

Despite a growing attention towards the situation of women at universities the question of gender relations in this area is still primarily dealt with in feminist research on higher education. So far, the marginalisation and discrimination of female academics is the major issue of concern (Hasenjürgen 1996: 85). The relevant studies focus mainly on the reasons for the exclusion of women from university and explanations for the horizontal and vertical segmentation of the academic job market. The foremost aim is to analyse the current situation and its socio-political background to create the conditions for changes in higher education. In addition, the debate about possibilities and limits of support measures for women and their significance has led to some important insight

regarding gender relations at university (Buchinger et al. 2002: 23). The subsequent paragraphs summarise the main findings of recent research, which will serve to analyse some results of the survey.

Similar to the situation in many other European countries, the Austrian university became a sphere of its own that was and to some degree still is incompatible with other areas of life. Due to the historical development of the higher education system in Austria³ the organisation of science is based on traditional male norms. Since the university, including its structures and rules, and particularly its higher positions are yet today markedly male-dominated the academy is often called a "homo-social world" (Schultz 1991: 5).⁴ In this "world", women face a more problematic situation than men because the ones who want to achieve importance in an organisation have to fit in well (Höyng/Puchert 1998: 125). Furthermore, the university is a place of the complete professional dedication of its members. Consequently, a specific image of the "proper scientist" has developed. This picture includes certain traits; the most important being male and the ability to commit oneself exclusively to scientific research (European Commission 2000: 61).⁵

The achievements of the scientists are measured by their **productivity**, particularly the number of publications. The reputation of the individual academic in the scientific community is highly dependent on the readable output and consequently, the academics also seem to be aware of this demand (Hebenstreit et al. 2000: 221; Spender 1981: 188). In this respect, other aspects of the academic profession such as teaching and support of students and junior faculty are less important. In fact, they can even be problematic as they are very time-consuming but little rewarding in terms of recognition by peers.⁶ In a study analysing the rank advancement of female and male academics in the USA

³ The description of the historical background of the university systems in the seven participating of the Research Training Network was part of the first phase. Poulsen (2001) has given an overview on the developments in Austria. Also Diem-Wille (1996: 171-178) portrays the historical changes, the exclusion of women and their late entry into university.

⁴ This is not an uncontroversial term as some researchers criticise that it neglects the ability of women to act and to influence the micro- and macro-policies of the university (Hasenjürgen 1996: 91). Anyhow, it seems to be appropriate to describe the initial situation of women in the academy, as their power is limited due to their ongoing under-representation.

⁵ Contrary to the image of the typical male scientist, Kreisky (2000: 39) detects certain "female characteristics" of the intellectual. Even though the intellectual is predominately defined by male features a particular downgrading of this social type has taken place by using female attributes.

⁶ Bülow-Schramm (1997: 148) sees a tendency of women towards subjects with a high demand of teaching ("lehrintensive Fächer"). She also declares that women who strive for qualitatively good teaching do not receive scientific recognition for this efforts.

Allison et al. (1993) conclude that the number of published articles is more relevant for women than it is for men. At large, women would have to meet higher standards for promotion. This demand works against the actual scientific output of women who generally seem to have fewer publications than men as their average number is below the one of men. Anyhow, there are differences according to certain characteristics such as age, marital status and children, as well as discipline. Schultz (1991: 254) found out that women with partners and children are the most productive academics whereas single women with children show the lowest rate of publications. Additionally, women take on other responsibilities at university and complain that they do not have enough time left for their individual research.⁷ Hence, woman academics find themselves in a dilemma: On the one hand they have to be extremely productive but on the other hand there are obstacles for them to fulfil this criteria.

Another important factor that can influence the career progression of academics is their **mobility**. To exchange ideas with other researchers attending conferences is regarded as being beneficial and stays abroad over longer periods of time for research purposes are often indispensable for an academic career. Particularly during longer stays, the academics acquire new knowledge that can later on function as an extra qualification. Regarding spatial mobility, Hebenstreit et al. (2000: 254) found out that at all levels of the hierarchy female academics are more mobile than men. This result is not only valid for stays abroad that are limited to a certain period of time but also for permanent moves. In spite of that, there are differences according to marital status and family. Mothers show the lowest rate of mobility compared to other women as well as to all men. The authors conclude from their findings that female and male academics become mobile when they can see an advantage for their career. Nevertheless, it is not possible to relate success in academia directly to the mobility of the academics (Hebenstreit et al. 2000: 257).

For an academic career, **support** is a necessary prerequisite albeit it is not a guarantee for success. The majority of professors received some form of assistance during the course of their career but it is more problematic for women

⁷ Generally women academics tend to spend more time on administrative tasks, teaching and counselling responsibilities for students than their male colleagues (Brooks 1997: 43). This circumstance becomes reduced though with career advancement. Female members of the junior faculty claim more often that they do not have enough time for individual research than woman professors (Buchinger et al. 2002: 138).

than it is for men to find a mentor (Schliesselberger/Strasser 1997: 193).⁸ Generally, women receive less assistance with their careers than men, which is considered to be an important obstacle for career progression of female academics. Additionally, there is also a difference in the quality of support. For male junior academics often a man professor functions as a mentor who offers a position as assistant or even gets engaged for the creation of a new chair for his mentee. The support of professors is not limited to advice and encouragement but is much more far-reaching and therefore, more intensive than what women experience. Some female academics do not even seem to receive assistance from professors at all but most of them do to at least some degree. They get support mainly in form of advice and guidance but the majority of women does not get concrete help with obtaining a position at university. Furthermore, mentors of the female academics are often not professors but someone with a similar status. Only few women report that they received support from a female professor and those who did often describe it as an ambivalent relationship sometimes characterised by competition (Schultz 1991: 112).⁹

Because support is seen as a very important element for career progression a debate on the advantages and disadvantages of mentoring as well as the introduction of special programs started in the last decades. Regarding the situation in Austria, Schliesselberger/Strasser (1998) conducted comprehensive research. Despite the legitimate argument that support is a very influential condition there are many controversial aspects that speak against mentoring. Even though this concept constitutes a necessary condition for the access of disadvantaged persons it would also bear the immanent contradiction that it perpetuates the existing system. Additionally, there is no consensus whether or not woman professors should act as mentors for female academics. Generally, the connection of mentor and mentee is characterised by an ambiguous relation of dependence and authority (Schliesselberger/Strasser 1997: 217).

In recent research, the issue of **reconciliation** is of special interest. Studies have shown that the double demand for women to coordinate professional and private

⁸ For the importance and gender-specific differences of personal contacts at the beginning of the academic career and for the further advancement see also the research studies of Buchinger et al. (2002: 81, 92) and Hebenstreit et al. (2000: 196-203).

⁹ Schultz (1991: 124) also analyses the relationship between experiences of support and the attitude towards mentoring junior academics. She concludes that there are different ideas on this issue. Woman professors would try to counteract the disadvantages of students and junior academics and thus to balance inequalities whereas man professors would hold the attitude to support the most competent ones and would therefore assist with the selection process at university. This gender-specific tendency was also observed by (Buchinger et al. 2002: 124).

life is the most common reason for their under-representation in the scientific field. In contrast, men do not have to cope with this situation. It is often stressed that interruptions in the employment, e.g. because of childcare responsibilities, are hardly or only under heavy difficulties possible to combine with career progression. One of the major reasons for this problem is the circumstance that research results become obsolete fairly quickly and that longer interruptions mean a disadvantage in terms of scientific competition. Due to the divergent situation of women and men only female academics mention the issue of reconciliation as an important aspect that influences their life as well as their career progression. Additionally, the discourse on reconciliation corresponds with the notions of science and intellectual achievements. As this requires the complete dedication of the individual academic to the scientific work, an extra person to care for the necessary reproductive chores is needed. Traditionally, the male scientist had and often still has a housewife at his side to take over these tasks. Academic women do not have this supportive help but have to find a balance between their responsibilities at home and the scientific demands, which often leads to physical and psychological strain.¹⁰ Therefore, it can be supportive for men but disadvantageous for women to have a family. A problematic outcome resulting from this long-established state of affairs is the fact that reconciliation is seen as the dilemma of woman academics but not of men (Buchinger et al. 2002: 27-31; Schliesselberger/Strasser 1998). As a consequence, a lot of women who want to pursue an academic career choose alternative ways of life and often decide against children. On the opposite, men do not have to explicitly decide between career and family (Schultz 1991: 211).

Research results regarding the influence of the family on the academic career are often contradictory. Generally, it is assumed that favourable starting conditions on the social as well as on the institutional level are extremely crucial to fulfil the demands of a career in higher education. Greater opportunities can be more important than the family background and thus chances can level out a disadvantageous starting situation (Schultz 1991: 70). Anyhow, in many cases the **family background** does play an important role. Professors in research studies frequently have well educated parents¹¹ and it is possible to assume that women from families with lower levels of education have even more problems

¹⁰ Of course, the situation of woman academics is very diverse. It can vary according to position at university and depends on the individual distribution of household tasks. Furthermore, not all family duties lead to a feeling of overburdening. Only such responsibilities that demand a high organisational effort seem to be problematic and can result in conflicts with work demands (Strehmel 1997: 121-126)

¹¹ Unfortunately the national statistics do not distinguish female and male professors according to family background, which it does for students (BMBWK 2002b).

than men to overcome the barriers that are due to their origin.¹² In interviews, man professors particularly from middle and working classes talk more often of disadvantages due to their social origin than women do. Yet, they also state that they received support with their study plans from their parents as well. Hence for men, the social background can have negative effects whereas the family itself generally has a supportive function. Women however report of a negative influence of the father but see the mother as a relevant role model (Schultz 1991: 96).

The position in the family is also of significance. Persons in leading positions are repeatedly single children or the first-born child in the family. They often received special attention from their parents, which did not always have positive effects but also made them feel overburdened. In this regards, no gender-specific difference was found. Diem-Wille (1996: 189) assumes though, that the position in the family is more important for girls than it is for boys. She thinks that girls who are the only child receive more guidance and support, develop a stronger self-confidence and therefore, have better starting conditions for a career. This is particularly different for those girls who have a brother. For this reason, the socialisation is an important aspect that influences the later professional development. Anyhow, women also manage to prevail over traditional norms and the intentions of their parents. In contrast to this, men often tend to internalise the pressure to be successful and do not oppose their parents (Diem-Wille 1996: 161).

Even though only little research has been conducted so far, it is possible to assume that besides the family of origin the **partners** of the academics play an important role regarding the scientist's professional development. In strong correlation with the traditional distribution of labour that to some degree is still prevailing in academic families, women very often take on a supportive function for their husbands/partners. Man professors receive a lot of intellectual support as well as help with ordinary tasks such as household or organizational duties and they know of its value regarding their own career. In this connection the level of education and the professional status of the partner are only of relevance when they determine the specific form of assistance. Woman professors do not receive as much support from their partners as men do. One reason among others is that the women do not want to take advantage of their partners. When female professors receive assistance they either get help with household and childcare responsibilities or they obtain intellectual support in the sense that

¹² Woman academics from lower social strata are confronted with diverging role expectations. They are supposed to fulfil the traditional female role and simultaneously take on the academic discourse with its distinct behavioural structures (Schliesselberger/Strasser 1997: 194).

their partners assist with academic work. Furthermore, women with supportive partners acknowledge their importance for their own professional development (Schultz 1991: 249-250). Hence, the partner can have a relieving or supportive function, which in consequence facilitates the progression with an academic career.

So far, there is little research on the **attitudes and behaviour** of man professors in regards to equal opportunity policies even though it can be assumed that this plays an important role in achieving equality. In her interviews with man professors, Schultz (1990: 175) found out that they generally have a progressive standpoint and even wish for more female university professors but she also notices contradictions in their statements. Even though the man professors admit that the existing university structures are a reason for the under-representation of women only few of them support changes of the system. In a pilot study in the early 1990s, the assessment of equal opportunity measures by male scientists was rather negative. The men justify their opinion by arguing that there are not enough female academics applying for vacant positions even though the men would be glad to employ a woman. For this reason, they also think that quotas serve the women in the way that they would be guaranteed a position (Holzbecher 1997: 48). In a more recent study, man professors state that they are principally supporting positive action even though some have not spend much time reflecting about this issue. They think that disregarding their own opinion “something has to be put right” (“etwas in Ordnung bringen”, Buchinger et al. 2002: 229) and that the legal regulations are binding. Regarding more concrete matters, the attitudes of the man professors become relatively altered. Quotas as well as the preference of female academics by the ministry are seen as problematic decisions. In this context, they also think that these strategic measures could even have negative consequences for women (Buchinger et al. 2002: 228-229).¹³ Thus, it becomes clear that man professors can hold a progressive view but that they seem to oppose policies when they have a direct effect on their own situation.

From these first results about the attitudes of men it is not possible to draw any conclusions on how they actually support or prevent the career progression of female academics. Höyng and Puchert (1998: 104) think that it is not sufficient to simply argue that men generally want to preserve their power and limit competition and therefore, would oppose equal opportunity policies. For this

¹³ Since the study of Buchinger et al. (2002) mainly focuses on the issue of reconciliation the authors did not investigate on the attitudes and behaviour of professors towards equality policies in depth. Therefore, we only receive some basic information of the academics' views.

reason, they try to find out how the organisation of bureaucracies works and how men respond to equal opportunity measures. Like in the study of Buchinger et al. (2002) they discovered that most men usually have a positive attitude towards these efforts but they also found out that there are various “types of men” (“Männertypen”, Höyng/Puchert 2000: 28) working in public administration and that those show different patterns of behaviour. They detect that men hardly ever actively oppose vocational equality measures. Instead, they hold a rather positive view and none of the interviewees questions the fact that women are disadvantaged in the public sphere (Höyng/Puchert 2000: 55; Höyng/Puchert 1998: 202). Yet the men oppose efforts to reach equality mainly by their passive behaviour. Even if the men know what they could possibly do they are inert because these activities are laborious and sometimes collide with other goals. Of course, there are also men who actively counteract equality measures when they are afraid to lose some influence and autonomy to decide but those persons are a minority (Höyng/Puchert 1998: 256). Hence, men can have a positive attitude towards equal opportunity policies but still counteract the efforts to reach this aim in various ways.¹⁴

Drawn from the preceding literature review the following are five basic assumptions regarding the under-representation of women at the higher levels of the academic hierarchy that will be analysed in Chapter 5 on the basis of the data from the survey.

1. The academic profession requires certain activities such as publishing research results, engagement for students and junior academics as well as teaching. Also spatial mobility can be necessary. Yet publications are seen to be most relevant for a career. To be successful, women have to show a higher degree of **individual commitment** than their male colleagues.
2. Despite formal promotion procedures, **personal support** of any form is indispensable for an academic career. It is more problematic for women to find assistance at university than it is for men.
3. Women still hold the main responsibility for household tasks and childcare duties. As a consequence, the issue of **reconciliation** in relation to their own career is more problematic for female academics than it is for male.

¹⁴ Regarding the question how the organisation of the administration influences equality efforts Höyng/Puchert (1998: 260) discover that the male-determined structures perpetuate the gender hierarchies and maintain the traditional power relations even if they have integrated feminist values.

4. The **social environment** of a person influences the course of life including the career. The family is of relevance as professors are more likely to come from well educated families than from working class families. Parents can support or avert their children's aspirations and can function as role models. Additionally, also partners can be influential.
5. The **attitude and behaviour** of men play an important role in the realisation of equality policies. Still today, the social position of men is more focussed on the sphere outside the family/household than it is for women. They hold the dominant positions in the public sphere and are eager to preserve this condition. Even though they principally support equal opportunity measures their actual behaviour can counteract those endeavours.

3. Methodological approach

3.1 The survey: A method to collect social data

Today, the **survey** is still a standard instrument of social research aiming at the collection of extensive empirical data (Esser et al. 1999: 299). It constitutes a form of communication between two or even more parties in a certain situation where stimuli in form of questions are used to produce results. Since this process is rather similar to everyday interaction it is indispensable to ensure scientific standards. Therefore, the development as well as the realisation of the survey have to be monitored constantly according to the underlying theoretical concepts (Atteslander 1991: 135). The situation in which the inquiry takes place can be structured in different ways. One form is the highly structured interview. Before the researcher can begin with the actual fieldwork s/he has to create a questionnaire that limits the freedom of the interviewer as well as the respondent's. The questionnaire generally determines the content, the number as well as the order of questions. Additionally, categories for answers can be set up. As a result, all interviewees are confronted with identical questions with exactly the same wording and in the same sequence. The basic assumption for this procedure is that all respondents will find a similar interview situation and that therefore, comparability among the individual cases will be achieved (Atteslander 1991: 162; Esser et al. 1999: 300-301).

Overall, there are several ways to carry out a survey. Due to limited personal resources and the geographical distribution of the target population over several locations within Austria it was decided to use the telephone. The **telephone interview** as means of social research has become increasingly popular during

the last century.¹⁵ The major advantages of this practice are its cost-efficiency and the speed of data collection. Additionally, the target population is easily accessible as Austrian professors usually have telephones in their offices. Another important argument for using telephone surveys in social research is the experience that response rates are comparatively high. They are regularly higher than in mail surveys and only a little lower than in face-to-face interviews. Also the reasons for refusal can be identified and therefore be analysed. Refusal rates can be further reduced and the data quality increased by sending out advance letters that can also make the authenticity of the research more evident (Frey et al. 1990: 39, 70; Frey/Mertens Oshi 1995: 51). Even though it is a disadvantage that visual aids cannot be used in telephone interviews it is possible to ask complex questions. Certain procedures have been developed so that respondents understand complicated issues and that even scales can be used in telephone interviews (Frey et al. 1990: 54).

The shortcomings of the telephone interview are counteracted with the introduction of new technologies. In formal research, centralized calling units are often used to conduct interviews. Here, the interviewer contacts the respondent from special calling stations that have special telephone and recording equipment as well as listening devices. Under such conditions it is possible to control the course of the interview. A supervisor can observe interviews as they are conducted and can immediately give feedback. Today, many social research centres use **computer-assisted telephone interviewing (CATI)**. Here, the questionnaire is programmed into a computer system and the interviewer enters the answers directly into the workstation. The interview is immediately controlled by computer-processes that show questions and their correct sequence on the screen. Instructions make sure that answers are valid and consistent with the previous answers of the respondent. In case the interviewer keys in impossible information an error will be displayed. The next question will only come up if the mistake is corrected. Therefore, fewer interviewer errors occur.¹⁶ Additionally, the interviews can be monitored by a supervisor listening from another station while the interview is being carried out. This is a legal procedure as long as the respondent is informed about it and agrees. Finally, the results of the interview are collected and summarised into a

¹⁵ For more information on the introduction of this method see Frey et al. (1990: 23-25).

¹⁶ Generally, there are fewer negative effects that an interviewer may have on the way a respondent answers in telephone interviews than in personal interviews because visual signs, such as skin colour or facial expressions, cannot be observed and so do not affect the response (Frey/Mertens Oshi 1995: 33).

set of data and can be transferred into a statistical computer program such as SPSS (Frey et al. 1990: 179; Frey/Mertens Oshi 1995: 5).¹⁷

For the present study, the Sozialwissenschaftliche Umfragezentrum (SUZ)¹⁸ at the University of Duisburg in Germany administered and conducted the interviews. This social research centre is the biggest institution of this kind directly integrated into a German university. As such, it carries out various research projects and guarantees a high quality of its work. It employs new technologies and has 50 workstations for telephone interviews as well as a computer laboratory to develop survey procedures. Currently, there are approximately 300 interviewers. The research centre employs different methods of data collection that are internet and multimedia surveys as well as computer-assisted personal interviewing (CAPI) and CATI. To ensure a high quality of the collected data material the SUZ has developed a procedure for computer-assisted pretesting of telephone questionnaires. This allows the registration of problematic responses without the interviewee knowing that s/he is participating in a pretest. Since all kinds of problems are registered the questionnaire can be changed adequately and thus be improved (Faulbaum 2002: 3).

To achieve a higher response rate those professors who did not agree on participating in telephone interviews were offered to respond to an **online questionnaire**. They were invited via e-mail to participate in the online survey and received a code with a personal internet-address to the website of the survey. The questionnaire was exactly the same as the one used for the telephone interviews and the SUZ used special software to conduct the online survey.¹⁹ Another three participants explicitly preferred to answer the questions in form of a **mail survey**. Those professors received a written version of the questionnaire. Generally, both, mail and online surveys, are unsupervised which means that they have to be completely self-sufficient as there will be no interviewer to assist with questions or to control who actually responds when constructing the questionnaire. Furthermore, it is also important to consider the education level of the target group (Bourque/Fielder 1995: 30; Wilk 1982). Since the target group of this study are professors these objections were not a problem. Additionally, we could assume that the academics are rather interested

¹⁷ For more details on the use of CATI and its advantages in social research please refer to Esser (1999: 353) as well as Frey et al. (1990: 179-183).

¹⁸ For contact details and more information on the social research centre please visit their website on <http://suz.uni-duisburg.de>.

¹⁹ The software used for the online survey was the Online Panel Site Tool by Globalpark. For further information please refer to <http://www.globalpark.de>.

in a topic related to their workplace and consequently would be motivated to answer the questionnaire.

3.2 Development and structure of the questionnaire

Since one of the objectives of the network “Women in European Universities” is to achieve comparable results for seven European countries it was necessary to create a single **questionnaire** that would be an adequate instrument in socially and culturally different environments. In a first phase, a draft questionnaire was developed among the group of doctoral students of the Research Training Network. As a preliminary step of its development, a list of factors regarding careers in academia was set up covering three areas: Firstly, internal factors such as the individual motivation for choosing an academic career, the impact of the family/partner, and the importance of relationships within the workplaces were supposed to be included in the questionnaire. Secondly, institutional factors, such as the university structures and the demands of an academic career, had to be taken into account. And thirdly, it was agreed that external factors, for instance the situation on the labour market or state ideology, were integrated as well. After the presentation of this list at a common workshop several underlying assumptions based on research in the seven participating countries were set up. The core topics were the reconciliation issue, the influence of networks, the importance of support for career progression, the distribution of teaching, research and administrative tasks, the impact of the intellectual environment on career prospects as well as a particular consciousness for equal opportunity measures as a prerequisite for their effectiveness.

After further research on the topic it became clear that some of these assumptions and thus, also parts of the questionnaire had to be modified. In another meeting it was decided to focus on the following central themes: Support and mentoring, networks in academia, the relation between work inside and outside academia, the glass-ceiling-phenomenon, academic style and new public management in higher education. As a result, the institutional factors of the above mentioned topics came into the foreground and consequently, the questionnaire was entirely revised in cooperation with the professors who are participating in the network.²⁰ As a last step, pretests were conducted in all participating countries to find out if there are any country-specific difficulties. The results of the pretests were compared and subsequently incorporated into the final version of the questionnaire. After the appropriate changes were made

²⁰ The preceding remarks are based on an internal paper by Anett Schenk who documented the procedures of the development of the questionnaire.

it was then - apart from a few inevitable exceptions and the use of the different national languages - the same for all seven countries.

The order as well as the wording of questions are of great concern in the relevant literature. The questionnaire should be structured in a way that the interviewer can easily meet the criteria of the survey. Furthermore, the expected behaviour of the respondent as well as the future coding of the answers have to be taken into account when creating a questionnaire (Frey et al. 1990: 132). A decisive component of the interview to attain the respondent's interest is the introductory statement. Here, information on the purpose of the interview has to be given and the potential respondent has to be motivated to participate in the survey. A successful introductory statement can lead to a low non-response-rate and thus, ensures the richness and the quality of the survey (Frey et al. 1990: 116; Frey/Mertens Oshi 1995: 44). The introductory statement of the present survey was relatively short. After the interviewers made sure that the correct person was at the phone they simply introduced the survey by telling the respondent that they were calling on behalf of the University of Innsbruck to conduct interviews among professors. Then they asked if the respondent had received the advance letter. If they had, no further information was necessary but if they did not, additional information on the survey was given.

Apart from the introductory statement, the first questions in a survey are also particularly important because they still have the function to build up immediate rapport and trust between interviewer and respondent and they have to catch the participant's interest. Two major characteristics are that they should relate to the topic of the survey and be easily answered by all members of the target group (Esser et al. 1999: 320; Frey et al. 1990: 136-140). The first three questions in this study were asking for the motives for pursuing an academic career. With these questions, the professors were invited to get engaged with the matter of their individual experiences at university. They had to look back upon their career and were therefore introduced to the overall topic of the survey.

After the first introductory questions, complex and more difficult questions may be asked. These should be raised before respondent fatigue sets in and answers are given not as carefully and less accurately. Easier questions, such as enquiries about demographics, should be positioned at the end of the interview since they do not relate to the topic and are least affected by fatigue. Two other important aspects are consistency and redundancy. Therefore, the order of questions has to be determined by logic decisions about the influence of different sets of issues and the dissimilarity between them has to be clear. In addition, the questions should be grouped by topic so that the respondent can comprehend the relationship among questions. When moving from one group of topics to the

following, the flow of the interview should be maintained by using transition statements so that the respondent becomes aware that a new topic is introduced. These statements may simply tell the respondent what issue the interviewer is going to address (Frey et al. 1990: 141-150; Frey/Mertens Oshi 1995: 100-104).

The main part of the questionnaire that was used for this study is divided into nine sections. After the three introductory questions a set of questions on the issue of study and career is next. Here, it is asked when the respondents finished their programs of study, where they finished it and what they did after graduation. It is also enquired when they finished their doctoral program as well as their habilitation, at which universities they received these qualifications and when and where they became professor. The second part of the questionnaire is concerned with work related issues. Here, questions regarding the time span of employment at university, the number of employment situations, interruptions of the career path as well as the importance of support mechanisms are raised. The third section is based on issues concerning scientific work in particular. In this context, questions relating to publications and research projects and about stays abroad are asked. The following section is looking more specifically at the various positions and activities in the academic sphere whereas the fifth part focussed on those in the non-academic field. The sixth section is concerned with financial matters such as paid positions besides professorship and general income. The next part is serving to find out about the attitudes of the professors towards work. Here, questions about satisfaction as well as individual feelings of work-overload are asked. The seventh section is dealing with family issues with the aim to get information on the present as well as previous marital status of the professors, the profession of the partner, the number and age of children and the responsibility for household duties. The eighth part of the questionnaire is concerned with the attitudes of the academics towards women in society and science. Here, it is not only important to receive information on the matter of women's professional life but also about attitudes towards equal opportunity policies and experiences of discrimination. The last section is asking for personal information on the participants, such as the year of birth, nationality, the education and profession of the parents as well as the respondent's current position and of course, their sex.

Most questions were closed ones. Whenever scales were used they included a ranking from one to five with the additional option for the interviewers to choose the categories of 'no answer' or 'do not know' on the computer screen. Where open questions were asked they were mainly concerned with figures such as income, certain time periods or dates or they were referring to institutions

such as universities. Moreover, some questions gave the respondents the opportunity to add relevant information.

3.3 The population of the survey

In the turn of an empirical investigation it is necessary to define the target population, which is the sum of all units of analysis. In this study, it is defined as woman and man professors employed at Austrian universities. The definition of the female target population as well as the classification of a male group for comparison took place in accordance with the situation in the other countries that participate in the Research Training Network as well as the specific circumstances of the higher education system in Austria. In a survey, either the data of all units or of a sample of the total population are collected. The complete data is usually collected when the number of units is small or when the total population is fairly heterogeneous in relation to its most relevant characteristics (Esser et al. 1999: 247-250). Regarding the female academics of this study, the total population was surveyed. Given that the accuracy of results is primarily dependent on the size of the sample (Bourque/Fielder 1995: 145; Kaplitza 1982: 137) and that the number of individuals qualified to answer the questionnaire was very limited it was decided to survey all female professors. Taking the potential refusals into account it was determined to additionally interview some female associate professors. In total, 112 female full professors and 18 associate professors were included in the target population. The advantage of surveying a total population lies within the fact that all parameters are known. There is no deviation as in the case of random sampling. Of course, there are also disadvantages²¹ but since they are mostly linked with a large number of units these problems do not affect our study (Esser et al. 1999: 250).

The survey group of man professors comprising the comparative population represents a non-probability sample. Even though the number of male professors in Austria is much higher than the one of the female professors it was decided not to sample randomly but intentionally on the basis of the characteristics of the population that are related to the objectives of the survey. The aim was to find the same number of male academics with very similar characteristics in comparison to the female group (i.e. academic position, discipline and age). The interviewed female professors were asked to propose a male colleague with the features similar to themselves. The basis for this approach is the assumption that the female academics would know much more about the characteristics of their male colleagues than the researchers undertaking the survey. 54 addresses of

²¹ These disadvantages relate mainly to cost and time factors.

man professors were gathered this way. Since this number was too small the SUZ collected 63 additional addresses according to discipline and university.

This procedure is a rather unconventional approach. It is possibly best described as snowball sampling because the previously identified members identify other members of the target population (Fink 1995: 19). The selection process bears the (most likely) risk of having a distorted sample in comparison with the total population of male professors.²² Therefore, the sample is not representative and results cannot be generalized for the whole population of male professors. It is not possible to prove this error due to a lack of data material in this specific case and not using random sampling (Kaplitzka 1982: 143). This circumstance would be a big problem if the main research objective was to analyse the situation of male academics and thus find representative results but since the survey focuses on the situation of female academics it is necessary to find the most comparable group of male university professors.

3.4 The process of data collection

As the survey of this study was conducted by a social research centre it was responsible for the various aspects of data collection and its quality assurance. The SUZ received the contact addresses of the female target population and in the following had to identify the corresponding telephone numbers. It also obtained the questionnaire that was developed by the members of the Research Training Network. Consequently, the questionnaire was transferred into an electronic form to use CATI. It was programmed and then completely tested on four female associate professors in Austria to make sure that it was functioning. The interviewer selection as well as their special training regarding general, technical and survey-specific matters was another preparatory task of the research centre.

The interview was introduced by an advance letter or e-mail that briefly described the topic and goal of the research. By reducing the surprise factor and increasing the time that the potential respondents could think about taking part in the interview, the letters possibly reduced the refusal rate and hence increased the data quality. It also proved the authenticity of the research and thus establish trust towards the survey. Furthermore, it is assumed that members of elites who have agreed on participating are generally very open when answering to the

²² This stands in contrast to having a standard error of the mean which is a common error for random samples (Fink 1995, 28).

relevant questions (Frey et al. 1990: 44, 121; Frey/Mertens Oshi 1995: 51). The advance letters and e-mails for the woman professors were sent out in the second week of September 2002 and the ones for their male counterparts were posted in the second week of October 2002. The participants had the chance to express time preferences for the interview. If they did not mention a specific time they were given a date at the first point of contact.

In the turn of the investigation a total number of 84 woman and 70 eligible man professors were interviewed. To obtain a high response rate the interviewers tried up to 40 times to get in touch with the potential respondents and documented the reasons for unattainability. A great contact frequency usually leads to an improved response rate (Esser et al. 1999: 344). In this survey, only eight persons were not reachable during this period. The individual interviews took approximately 40 minutes, which is considered an appropriate length for a telephone interview (Frey/Mertens Oshi 1995: 37). The field phase started on 23rd September 2002 and was finished 14th February 2003.

3.5 Response summary

As mentioned before, the **response rates**²³ in telephone surveys are generally fairly satisfying. Even though there is no clear-cut standard rate a proportion between 70-80% is considered sufficient (Frey/Mertens Oshi 1995: 30). In this study, all persons of the sample are eligible. They all fulfil the main defining criteria for inclusion, which is being employed as a professor by an Austrian university. Therefore, the response rate represents the relation of response to contactable population. In the present survey rate is 71%, which means that 154 persons fully completed the questionnaire. There is hardly any difference between the rates of female and male professors. All together, 141 interviews were conducted by telephone. 79 women and 62 men answered the questions this way. 10 respondents chose to use the opportunity of the online survey and 3 preferred the mail survey.

The **completion rate**, as the ratio of fully completed interviews to the sample, is usually lower than the response rate due to ineligible persons in the target sample but since there are no such persons in the total population of this study the rates would have been the same. To receive some additional information on

²³ Response rates are subject to debate on how they are calculated (Frey et al. 1990: 37; Frey/Mertens Oshi 1995: 30). Since the calculation of the rates in this study differs from those of Frey et al. (1990) please consult the glossary, Appendix VI, for their specific definition.

the course of the survey I decided to include also the sample-neutral losses into the calculation. So in this case, the completion rate also includes the number of persons with whom it was not possible to establish any contact during the whole field phase. As a result the completion rate is 62.3% in total. It is 64.6% for women and 59.8% for men. So there is a rather big difference between the response rate and the completion rate. This difference shows that a large number of losses are due to the impossibility to establish contact. The total ratio of persons with whom no contact was established to target population is 12.1%.

The **non-contact-rate** is higher for the men (15.4%) than it is for the women (9.2%). On the one hand, this outcome is surprising. Since the official contact details at the work place of the professors were available it was probable to assume that most of the persons were in easy reach. The difference among the sexes is possibly explained by determination of the contact details. Here, an official list may be more precise than recommendations or own investigations. On the other hand, a large part of the non-contactable persons (19 of 30 professors) were not available at the very moment of the field phase which means that the professors were out of office. This is not unusual since some academics could be visiting professors at other national or international universities or could be absent for other professional or private reasons.

Another informative figure is the **refusal rate** of a survey. This figure shows how many of the eligible individuals decide not to participate in the survey for one reason or another. In telephone interviews, explicit refusals can be determined and they usually occur during the introductory statement or before the first question. Efforts to persuade persons who refuse to participate are mostly insignificant and the rates do not vary according to length of the questionnaire, topic of the survey or place of residence. There are experiences of rates as low as 16% but today they are increasing and percentages of 25-30% are common in telephone interviews. In this study, the total refusal rate is 29% and there is basically no gender-specific difference. It is generally difficult to determine the reasons for refusal and it is assumed that there are often even no specific motives (Frey et al. 1990: 40-42).²⁴

Despite all follow-up procedures to increase response rates there can still be the problem of unit non-response. This is the failure to obtain any information on a sample unit. It is most problematic in mail surveys due to generally low

²⁴ For a complete overview of the response summary see Appendix V, Table 1.

response rates.²⁵ In telephone interviews, this issue is less frequent but it is often difficult to know anything about the non-respondents. Nevertheless, it is important to determine the characteristics of this group to compare them with those of the respondents. If the differences are big they will influence the results of the survey; a non-response bias is introduced (Frey et al. 1990: 42-43; Wilk 1982: 192-194). In telephone interviews that choose persons from a random sample the non-response problem does not become apparent. The persons with whom it is impossible to establish any contact are replaced by new respondents until the apposite sample size is reached (Kurz 1987: 16). In our case we can assume that the characteristics of the non-respondents do not differ very much from the ones of the respondents. The non-contact-rates are sample-neutral and additionally, the key attributes of the attainable as well as the refusing persons are fairly similar since the target group is very homogenous. The refusal rate of women and men is the same so that there should not be any gender bias. Also there should not be a strong bias relating to most other socio-demographic characteristics, such as profession or income as well as in relation to university or scientific field. Anyhow, we cannot determine the reasons for refusal. So it could be possible that the refusing professors are simply less interested in the topic or that their reaction is due to time constraints. But it is also possible that their experiences with an academic career are more negative than the ones of the responding population.²⁶

4. Social and professional characteristics of the respondents

4.1 Demographic features of the respondents

4.1.1 The age structure

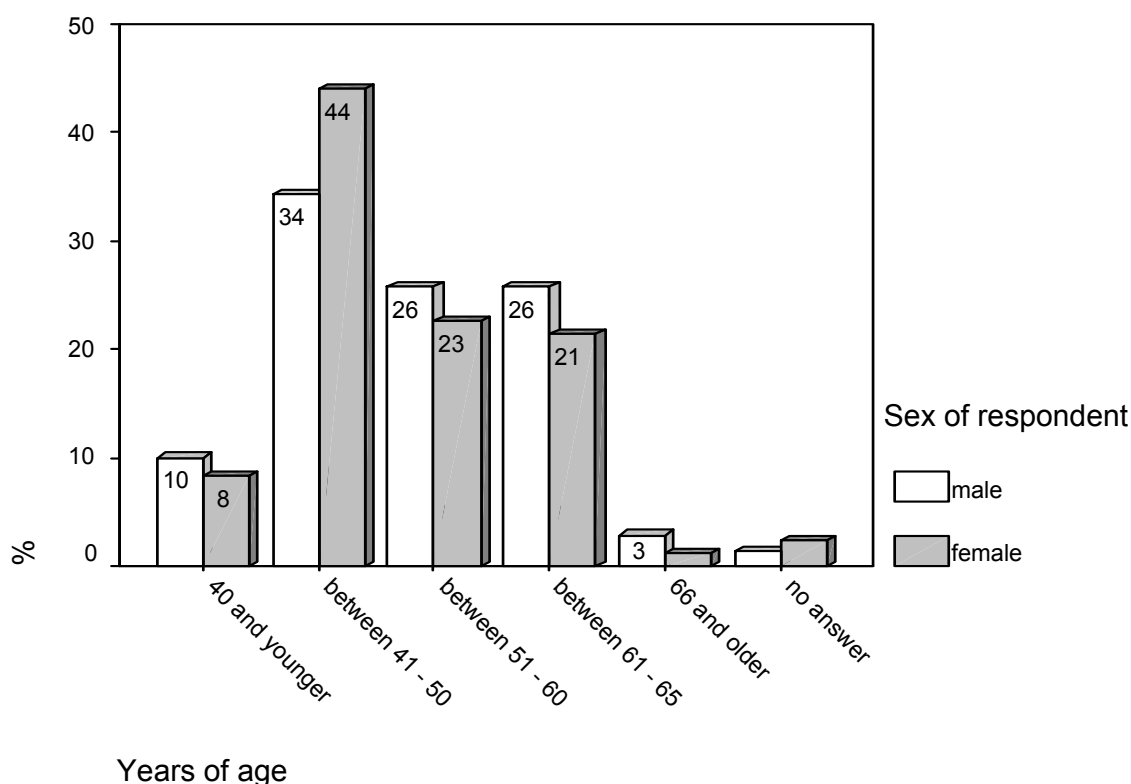
According to the national statistics, most professors at Austrian universities are between 51 and 60 years of age. 40.4% of all female and 44.2% of the male professors belong to this cohort. Generally, the average age of female professors is lower than the one of the male. Only 15.6% of all woman professors but 29% of all man professors are between 61 and 65 years. Among the younger academics, 36.7% of the women are between 41 and 50 years of age and 5.5%

²⁵ Dillman et al. (2002) give a concise overview on the reasons for nonresponse, the impact of survey design and differences among types of survey as well as statistical aspects.

²⁶ The typical characteristics of a non-respondent as described in Mangione (1995: 61-62) do not make sense here because the target population constitutes an elite and a rather homogenous group. Additionally, in a study based on the analysis of a mail survey among 6518 Austrians, Kurz (1987) did not find a strong non-response bias and thinks that this small error can be easily adjusted with careful interpretation.

are younger than 40 years. Of the man professors 18.1% are between 41 and 50 years old and 2.1% are younger than 40 years (BMBWK 2002b: 109). Concerning this relatively uneven age distribution among the sexes there are two possible explanations: On the one hand it could be that women are able to access the post of professor at a younger age than their male counterparts. On the other hand the older age of man professors is most likely due to the circumstance that men have had access to this post for a much longer time whereas women are still on the road into this profession.

Figure 1: Age structure of the respondents



In this study most female and male professors are between 41 and 50 years of age. Figure 1 shows that with 44% in this age cohort women are relatively over-represented. Even though the female academics of the survey tend to be slightly younger in comparison with the figures on the national level the distribution is generally similar. The age distribution of the female and the male respondents is fairly alike. This is due to the precondition that the sample of male academics should have characteristics similar to the ones of the female professors. Yet, the male professors dominate in all age groups apart from 41 to 50 years. Albeit the age structure of the male professors in this study is younger than the one on the national level the male respondents are still somewhat older than their female

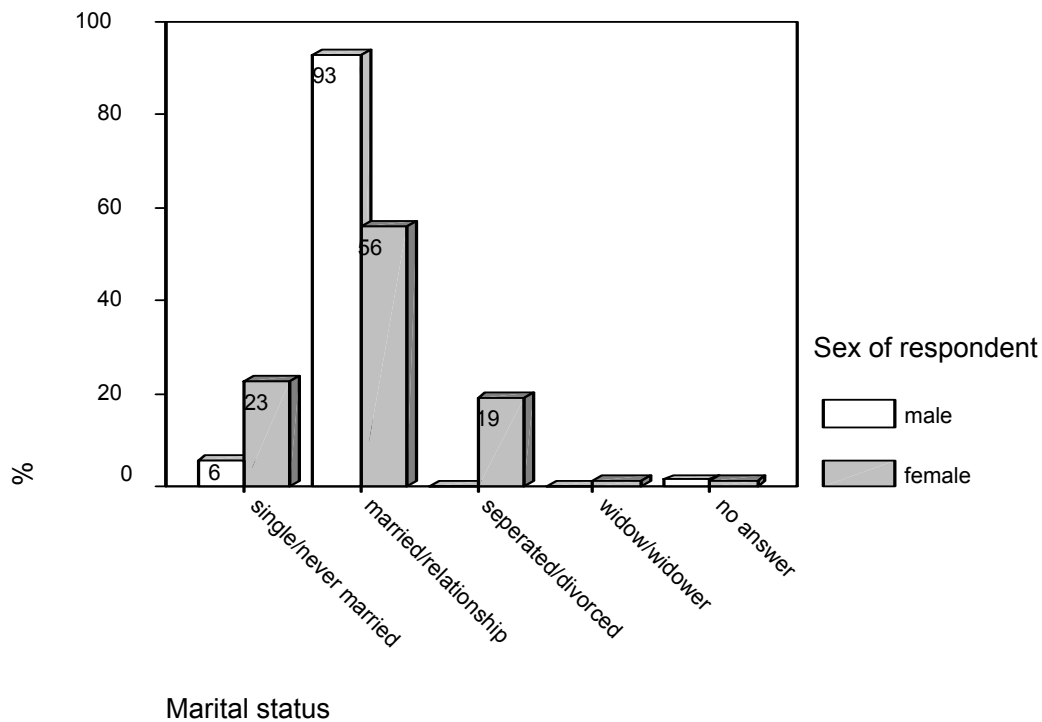
colleagues.²⁷ As the female population of this study is generally a little younger than the male one the median for the birth of the women is the year 1952 (51 years of age) whereas the one for the men is 1948 (55 years). This rather small age difference is not representative though for the total of professors in Austria due to how the male sample of this study was chosen.

4.1.2 Marital status and number of children

Most respondents of the survey are married or involved in a relationship (72.7%). Figure 2 illustrates that this is particularly true for the man professors (92.9%) whereas the proportion among the women is much lower (56%). 14.9% of all respondents have never been married and are single. In this regard the female respondents are over-represented. 22.6% of them are found in this group but only 5.7% of the men. One woman is a widow and one female and one male professor did not answer this question.²⁸ No man but for 19% of the women are divorced or currently separated. When explicitly asked whether or not the professors had ever been divorced in the past another nine women and ten men answered yes. Added together a rather large number of 25 woman professors of this investigation have been divorced or separated which is 29.7% of the female respondents.

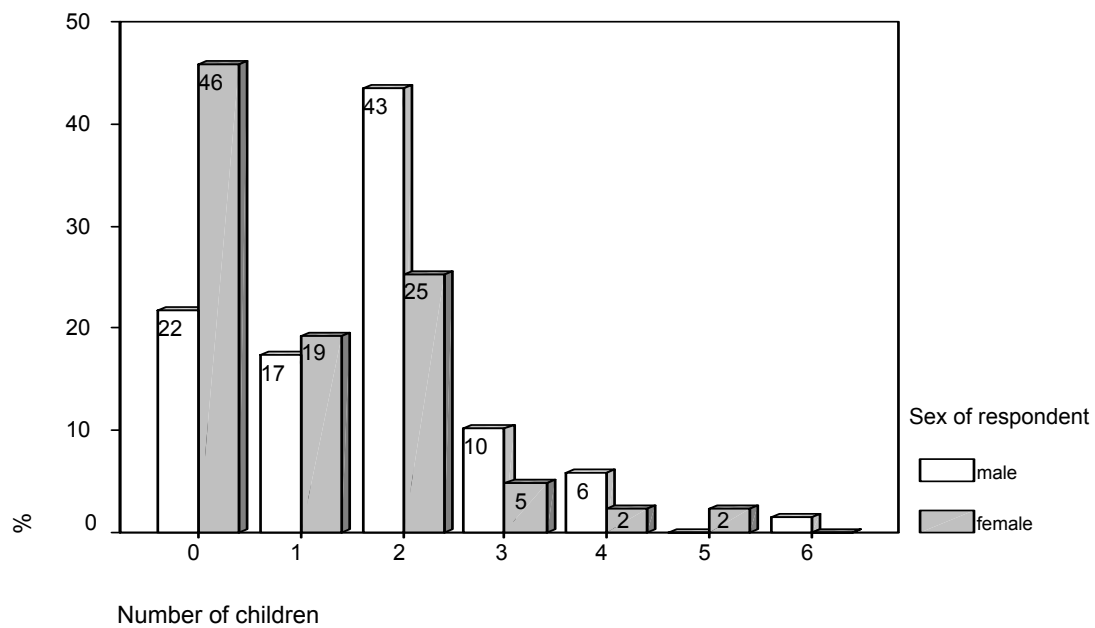
²⁷ For a complete overview on the numbers please refer to Appendix V, Tables 2.1 and 2.2.

²⁸ Please also see Appendix V, Table 3. This is confirming the results of other studies. For example, Hebenstreit et al. (2000: 227) discover the same phenomenon among their interviewees. The female share among singles in their investigation is much higher than the one among men.

Figure 2: Marital status of the respondents

In this study, 99 professors (64.3% of the respondents) have children. With a rate of 77.1% among male professors and 53.6% among female professors comparatively more men have children. This corresponds with the findings of other research studies. Sometimes the difference is even more dominant than in the present case (Hebenstreit et al. 2000: 228). Figure 3 shows that of the professors with children most have two offspring. This is valid for 25% of the female professors and for 42.9% of the male. The relative number of women with children who have only one child is 17.1% and it is 19% for the men. Consequently, the women have fewer children than the men. This becomes even clearer when looking at the number of professors with three or more children. There is also only one man professor with six children.²⁹

²⁹ For further details please refer to Appendix V, Tables 4 and 5.

Figure 3: Number of children

When the variables “age” and “children” are compared it becomes clear that the younger respondents less often have children. Among the woman professors who are younger than 41 years of age only 28.6% have children whereas the percentage of mothers among the female professors who are 41 to 50 years is 56.8% and it is 68.4% for the ones between 51 and 60 years. Even though also the younger male respondents less often tend to have children their figures are higher in all age groups than the ones of the women. The relative number of man professors with children is 57.1% for the ones younger than 41 years but ranges from 75% to 89% in age cohorts above this age.

4.1.3 Affiliation with university and field of science

According to the report on higher education (“Hochschulbericht”) the University of Vienna is the biggest institution in Austria in terms of the number of university professors. In 2001/2002, there are 437 university professors, which equals 27.8% of all university professors, employed by Austrian universities. 41 of them are women. At the University of Innsbruck there are 220 university professors of whom 21 are female and at the University of Graz there are 204 university professors of whom 11 are female. The smallest university is the University of Veterinary Medicine in Vienna with 27 professors of whom 2 are women. The only university in Austria where there are no woman professors is the Leoben University of Mining and Metallurgy. With a total of 38 employed

university professors this is also the second smallest institution in the country (BMBWK 2002b: 99).

The University of Vienna employs 38.7% of all female university professors in Austria. Albeit also most male university professors work here their share of 27% of the total is smaller. The female quota among all professors at this institution is 9.4%. The second largest number of female professors (19.8%) is employed by the University of Innsbruck where the female share is 9.8%. 10.4% of the female professors work at the University of Graz as well as at the University of Salzburg. Here, the female shares are 5.2% and 9.1% respectively. At the other end of the spectrum are the Technical University Graz, the University of Veterinary Medicine in Vienna and the University of Linz. Each of these institutions employs 1.9% of all female university professors in Austria. At two of these universities the female share is also relatively low. It is 2.2% at the Technical University Graz and 2.8% at the University of Linz (BMBWK 2002b: 103-104).³⁰

Also in the present study most of the female and male professors are working at the University of Vienna. With 36.9% of the female respondents and 27.1% of the male the distribution is similar to the national situation.

³⁰ For further information on the distribution of female and male professors among Austrian universities please refer to Appendix V, Table 6.

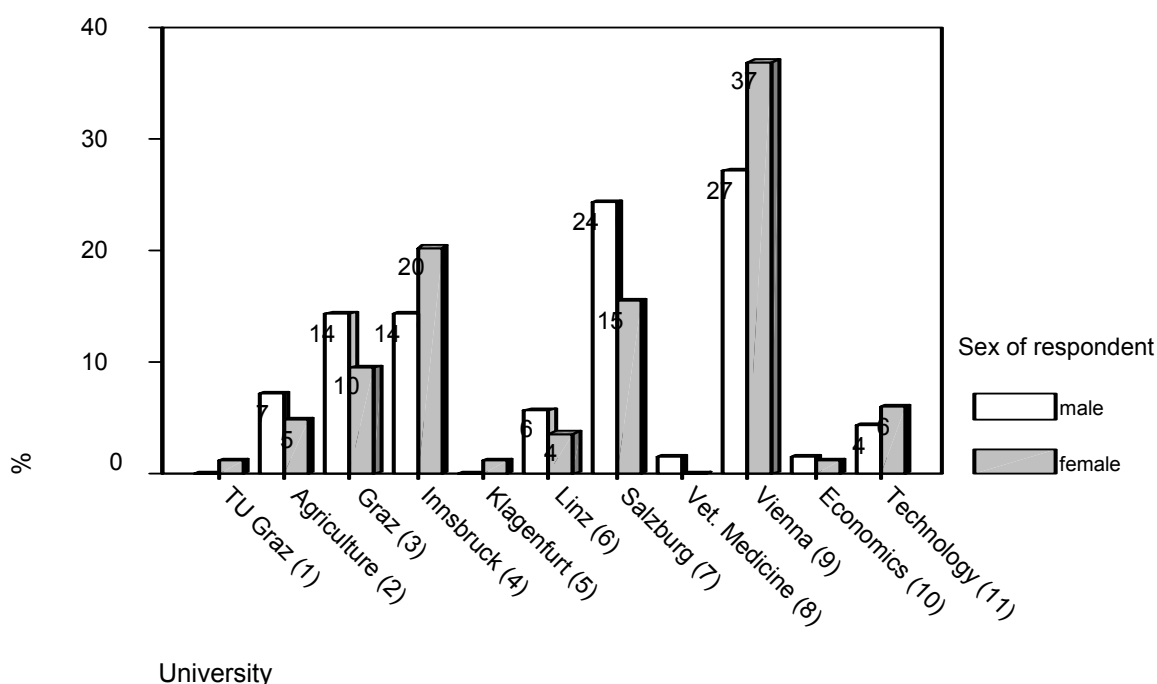
Figure 4: Distribution of respondents among Austrian universities³¹

Figure 4 shows that the second largest number of female respondents (20.2%) is employed by the University of Innsbruck followed by the University of Salzburg (15.5%). The smallest number of female professors works at the Technical University Graz and the University of Klagenfurt and there are none at the University of Veterinary Medicine in Vienna.³² Altogether the distribution of the female respondents among Austrian universities corresponds with the situation on the national level. For the group of male respondents there are bigger differences as it was intended to have a contrast group that is similar to the female population rather than to the overall number of man professors.

Concerning the single disciplines there are prominent differences between the female and male shares. Particularly in the humanities woman professors are relatively well represented. In 2002, around 15% of the professors in this discipline are women. This means that more than 40% of all woman professors in Austria are working in the field of humanities. With 9.1% women are also considerably represented in agricultural sciences and they make up just above 7% of the professors at theological and medical faculties. In these disciplines the proportion of female professors is above the national average of 6.8%. In

³¹ The full names of the universities can be found in Appendix II. For an easy allocation, the numbers in brackets in this diagram correspond to the numbers in the appendix.

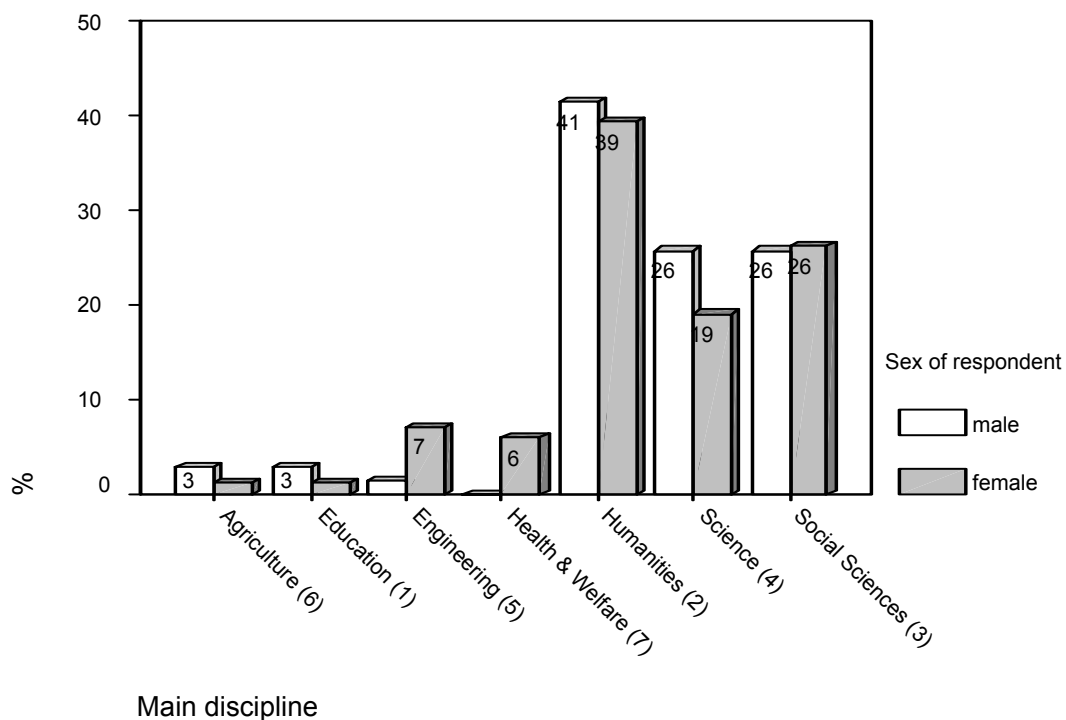
³² Due to the fact that there are generally no woman professors at the Leoben University of Mining and Metallurgy the survey does not include any professors from this institution. For a complete overview on the distribution of the respondents among Austrian universities please refer to Appendix V, Table 7.

contrast, women are much less represented in technical and natural sciences. At faculties of natural sciences women constitute 2.9% of all professors and at faculties of computer science and electronic engineering there are even no female professors at all (BMBWK 2002c).

In this study, most professors (40.3%) are working in the humanities (2).³³ This is not only valid for the women but also for the men since they were chosen according to similar characteristics in comparison to the female respondents. With 39.3%, the share of women is even a little lower than the one of men (41.4%). A large number of respondents (26%) are also working in the social sciences, business and law (3). 26.2% of the woman professors and 25.7% of the man professors are found in this discipline. Most of these persons (15.6%) are concerned with social and behavioural sciences and 9.7% with law. 22.1% of the respondent professors are working in the field of science (4). Whereas 19% of the women are working in this field the proportion is 25.7% for the men. These professors are either interested in life science, natural science or computing. 4.5% of all respondents, 7.1% of the women and 1.4% of the men are involved in engineering, manufacturing and construction (5). Most of them are specialised in architecture. 6% of the female professors but none of the male are working in the field of health and welfare (7). 1.9% of all respondents (1.2% of the women and 2.9% of the men) are working in the fields of education (1) or agriculture (6) respectively.³⁴

³³ In the interviews the respondents had the opportunity to answer to an open question (no. 81) regarding their main discipline. For a better overview the results are classified according to the ISCED 1997. The number in brackets refers to this classification (see Appendix VII).

³⁴ For more details on the affiliation of the respondents with fields of science please refer to Appendix V, Tables 8 and 9.

Figure 5: Distribution of respondents according to field of science

Even though in some fields there are rather large differences between the sexes we cannot say anything about a gender-specific distribution in general due to the selection of the male sample.

4.1.4 The distribution of income

The salary of Austrian university professors is regulated by the income law (“Gehaltsgesetz” - GG) in its section IV. The latest legal changes occurred in connection with the reform of the employment law for university teachers (“Universitätslehrer-Dienstrecht”) in 2001 and 2002. Originally two separate income schemes existed for full university professors and for associate professors. Until 1993, when a new University Organisation Act (UOG) was introduced and the distinction between the two forms of professorship were abandoned (§21 UOG 1993) there were 15 steps in the income scheme for associate professors and because of their higher age, 10 steps for full professors. Today, there is only one income scheme for all university professors with a total of 13 steps (§48(1) GG). After two years at a certain stage the academics

advance to the next one. In January 2002, the lowest level starts with a basic monthly gross salary of € 2834.90 and it is € 5307.00 at the highest.³⁵

In addition to the basic income there is a complex system of supplementary payments. A university professor usually receives an extra pay of € 323.00 for research (“Forschungszulage”; §49a GG) as well as an expenditure remuneration of € 74.00 per month (“Aufwandsentschädigung”; §49b GG). Moreover, a professor who has been employed at the highest step of the income scheme for four years is eligible for seniority allowance of € 567.40 (“Dienstalterszulage”; §50(4) GG) and additional supplements after longer services. Furthermore, university professors receive extra payment in relation to the personal amount of teaching (“Kollegiengeldabgeltung”; §51 GG) and for execution of certain positions such as rector of a university, head of faculty or chairperson of a committee (“Amtszulagen”; §53a GG).³⁶

Due to this complex structure it is difficult to estimate how much university professors in Austria earn on average (Hanske/Karpen 1994: 37). For January 2002, the minimum amount for university professors is fixed to € 43,952.50 per annum and to a yearly maximum of € 131,857.60 by the law regulating the employment of contract staff (§49j(1) VBG). In case of part-time employment the salary is reduced accordingly. The income compounds of 12 regular monthly payments and two extra payments. From these figures we can conclude that there is a relatively broad income span among Austrian professors depending on the seniority of the individual academic and extra remunerations.

Hanske and Karpen (1994) estimate that the income of university professors in comparison to other professional positions is comparatively good. They also refer to earlier research where the majority of full professors was found to be very satisfied with their income. But because of legal changes the authors also assume that this could change in the future (Hanske/Karpen 1994: 136-137). More recent evaluations show that professors tend to be reluctant to talk about their own income. They claim that the salary structure of university teachers is transparent and that it is therefore possible to know about the income of academics. Additionally, it seems to be a taboo to talk about the own earnings. Consequently, there are hardly any information on the height of the income as

³⁵ An outline of the income scheme for university teachers can be found in the internet at <http://www.uibk.ac.at/c/cd/cd04/gehsch02k.pdf>. Please notice that all amounts are rounded and approximate figures.

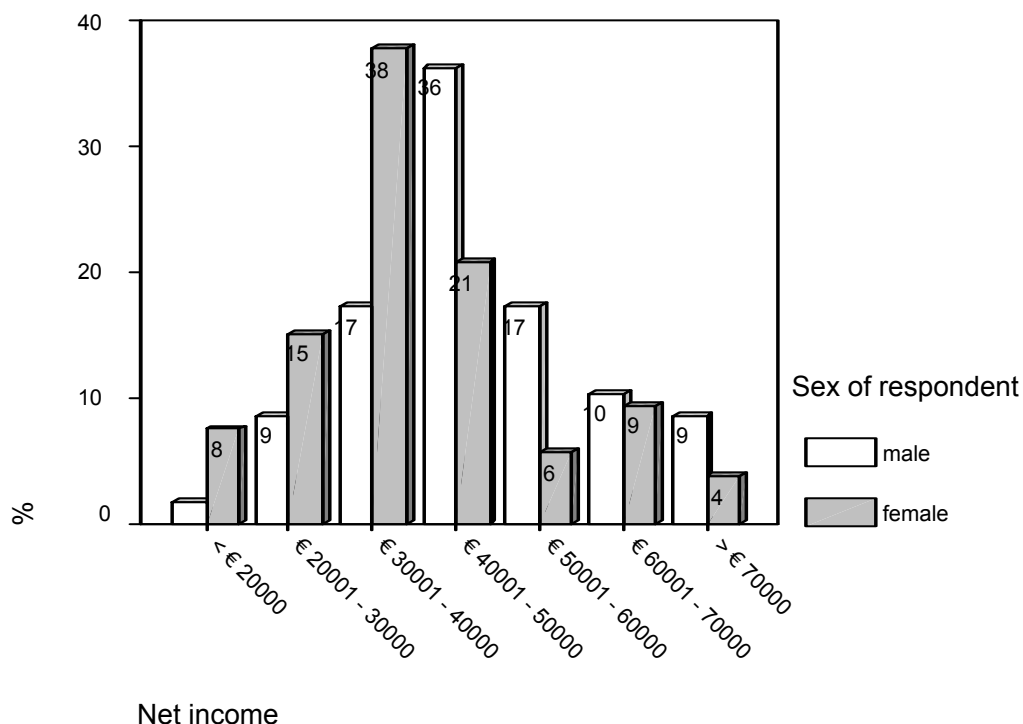
³⁶ In Boigner (1990: 57-61) as well as in Hanske/Karpen (1994: 136-140) the basics of the income patterns of university professors are laid out. All amounts though are still in Austrian Shilling and are of a rather old date.

well as on the satisfaction of professors with their salary (Buchinger et al. 2002: 167). Due to a lack of precise information and details on additional income from third sources it is difficult to give a complete overview on the income structure of Austrian university teachers and gender-specific differences.

Also in the present study it was not easy to receive information on this matter. 43 professors did not answer the question regarding their individual total net income (27.9% of all respondents). The women in this study seem to be even more reluctant to talk about their salary than the men. 31 female and 12 male professors did not provide any data. Therefore, the following results relate to the information from 72.1% of all respondents. Additionally, there is no possibility to check the correctness of the provided figures. In several cases the amount of the total net income is disproportionately low for a university professor.

Figure 6 tries to give a simplified overview of the income distribution among the respondents. In 2001, most respondents have an annual total net income including all supplementary pays between 40,001 and 50,000 € (28.8% of all respondents of the relevant question).

Figure 6: Total net income in 2001 (including all extra payments)



With 36.2%, relatively more man professor than woman (20.8%) are found in this income group. Most female professors (37.7%) are found in the group of a

salary between 30,001 and 40,000 € whereas the proportion of the male respondents is 17.2%.³⁷ Therefore, the woman professors of this investigation tend to earn less than their male colleagues. The average income of the female respondents (41,265 €) is lower than it is for the men (49,008 €).³⁸

The majority of the respondents indicates that the largest proportion of their income comes from the basic salary of the university. More than 83% of the respondents claim that they receive over 60% of their annual income as basic salary. There is no difference according to sex.³⁹ Supplementary payments from the university play a less important role. They make up less than 20% of the total income for 83% of the respondents. The payments for other academic activities as well as for non-academic work are of little significance. Those payments also constitute less than 20% of the total income for most respondents.

The salary scheme of university teachers in Austria leads to an increase of the income with the number of service years. Anyhow, in this investigation it is not possible to prove a coherent correlation between income and the time since obtaining the first position as professor. This also applies to the relation between income and length of employment at the current university. This circumstance may be another indicator that the information regarding the respondents' earnings is not very accurate. Also no differences in the distribution of the income according to disciplines could be detected.⁴⁰

Most respondents are reasonably satisfied with their individual academic salary as there are hardly any extreme estimates, which is similar in the different disciplines. Only very few of the professors consider their income as either very good or very poor. The majority of respondents has a rather neutral attitude in this regards. 51.2% of the female and 34.3% of the male professors think that their salary is neither good nor poor. Another large proportion thinks that their income is good (22.6% of the women and 35.7% of the men).⁴¹ From these figures we can see that there are clear gender-specific differences in the evaluation of the individual income. The woman professors in this study tend to

³⁷ Please see also Appendix V, Table 10.

³⁸ The individual salaries are widely spread out. The mean for all respondents has a standard deviation of 16,700 €. The median for all respondents is located at 43,600 €, at 37,500 € for the female and at 47,200 € for the male respondents.

³⁹ Please refer to Appendix V, Table 11.

⁴⁰ For reasons of clearness the seven disciplines were grouped into two sets. The first group includes education, the humanities and social sciences and the second consists of agriculture, engineering, health and welfare as well as science.

⁴¹ Please see also Appendix V, Table 12.

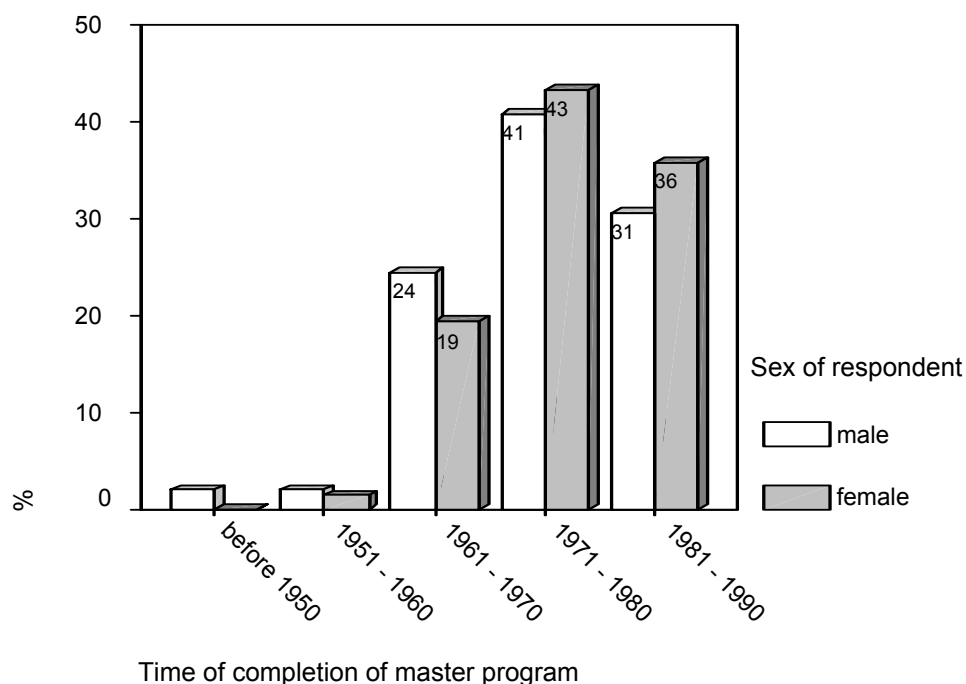
be somehow less satisfied than man professors. This may be partly due to the favourable income structure for the men in this investigation.

4.2 Academic career paths: Female and male career patterns

4.2.1 A prerequisite: Graduation from university

Today, a general prerequisite for an academic career is the completion of a study program at a university. In the past it was possible though to directly pursue a doctoral program without previously having received a master degree (“Magistergrad”). Most respondents of this survey obtained the first formal qualification and graduated from university with an academic degree. At this stage, there is a rather big disparity between women (79.8%) and men (70%). Additional 25.8% of all respondents also obtained a second degree on the same academic level. Here, there is only little difference between the sexes. Most professors of this study graduated during the time of expansion of the higher education system. 43.3% of the women and 40.7% of the men obtained their first degree between 1971 and 1980. Another large proportion (35.8% of the women and 30.6% of the men) reached this achievement between 1981 and 1990.⁴² The differences are possibly due to the age gap among the respondents.

Figure 7: Time of completion of master program



⁴² Please compare Appendix V, Tables 13 and 14.

Altogether, there is a small trend that the time of the man professors' graduation took place at an earlier point of time in comparison to the women. But due to the selection criteria of the male contrast group this is not a general conclusion.

Most of the respondents (71.3% of the professors who answered the relevant question) finished their studies at an Austrian university. 31.3% of them obtained their master degree at the same university where they are currently working. In this regards another gender-specific aspect becomes apparent. 39.6% of the male respondents but only 25.4% of the female respondents were able to remain at the same institution. Around 40% of the respondents obtained their first degree at another Austrian university and there is only a small difference between the woman (37.3 %) and the man professors of this study (43.8%). Nearly 28% of the respondents received the respective qualification outside the country. 37.3% of the female but only 16.7% of the male respondents obtained their first qualification in another country. Most of the persons (25 respondents) who graduated in another country did so in Germany. Three persons graduated in Switzerland. Other countries where the respondents received their first degree are Finland, France, Scotland, USA and Australia.⁴³ Here we find a strong connection with the country of birth of the respective persons. All concerned respondents graduated with a first academic degree in the same country where they were born.

4.2.2 At the start of the career: From graduation to dissertation

In Austria, the formal career process is regulated by the employment law for university teachers. The transition from one position to the next depends on obtaining the appropriate academic degree. Until recently, the first stage of an academic career was receiving employment as university or contract assistant on a temporary basis. Besides other duties the junior academics were supposed to write their dissertation during this time, which is a necessary prerequisite for further career progression in the scientific field.⁴⁴

For female and male academics the paths into the university system and their further development are dissimilar. For women an academic career often begins as contract assistant whereas men are able to receive positions as university

⁴³ Please see also Appendix V, Tables 15 and 16.

⁴⁴ At present, the first step of the career path is the level of academic employee. At this stage, the junior academics work on their dissertation and acquire specialisation in a scientific field (Kucsko-Stadlmayer 2001: 25). As this is a newly created employment position it is not applicable for any of the professors in the present study.

assistants. Thus, female members of the junior faculty are more often employed on a temporary basis than their male colleagues. For most men, a continuous transition from studying to working at a university can be observed. This means that they often remain at the same university directly after their graduation. The preconditions for this are laid during the studies. For women, there seem to be different developments according to discipline. In the technical field, women are often able to follow an uninterrupted route into the academic profession whereas female scholars in the humanities frequently enter the university system at a later stage of their life. This deferred entry can occur due to childcare duties, occupation in a different field or because of unemployment (Buchinger et al. 2002: 80, 91).

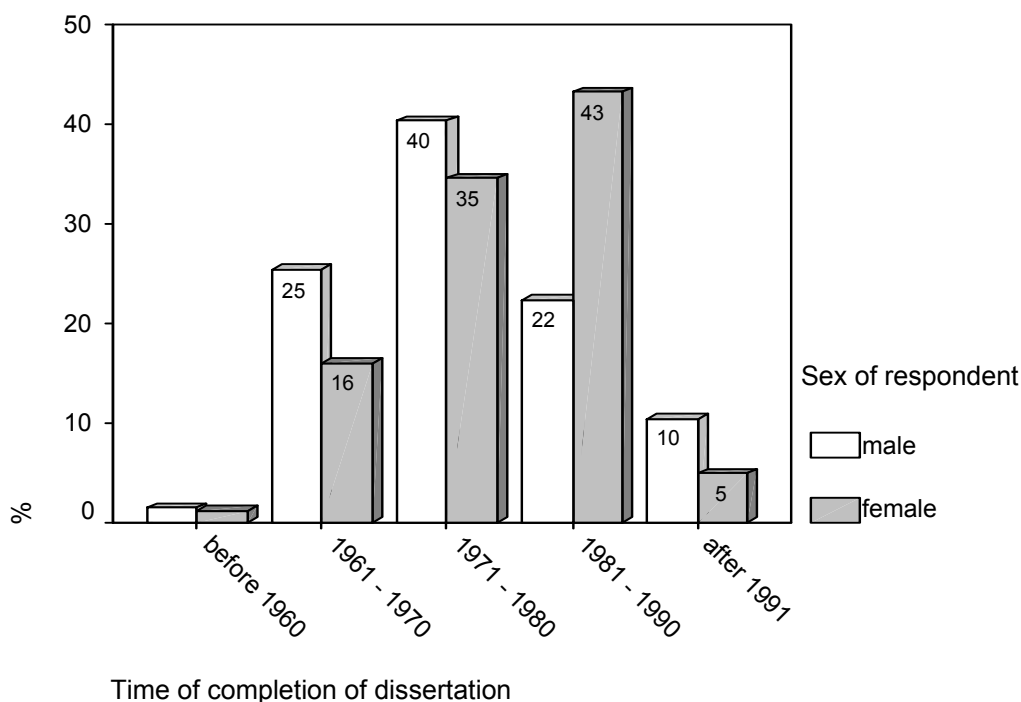
Most of the professors in this study immediately started to work on a dissertation after they graduated from university. In this case, the women seem to have had an even straighter entry into the university system. 71% of the female respondents and 65.3% of the men stated that they directly started with their dissertation after they successfully finished their undergraduate studies. 13% of the women and 10.2% of the men said that they were working at university or a research institution before commencing with the next qualification stage. Another 7.2% of the women and 14.3% of the men even pursued a career outside academia before returning to university. In this study it is hard to determine whether or not there is a correlation between the occupation after graduation and the disciplines of the professors. Among women working in engineering, manufacturing and construction 33.3% continued with their dissertation directly after graduation. Contrary to this, 90.9% of the women and 66.7% of the men in the sciences follow this pattern. Also a large proportion of the professors in the humanities show a rather straight path. 66.7% of the women and 72.2% of the men remained at university working primarily at their dissertation.⁴⁵ Even though the findings of Buchinger et al. (2002) mentioned above cannot be confirmed it has to be considered that their result is based on interviews with university assistants whereas these are the explanations of professors.

The majority of the respondents in this study (96.1%) received a formal doctoral degree. There is no significant difference between female and male professors. A small proportion of 7 respondents even obtained a second doctoral degree. Regarding the time when the first dissertation was completed there is a similar trend in comparison with the time of graduation. Most of the women (43.2%) finished their dissertation between 1981 and 1990 whereas most men (40.3%)

⁴⁵ For more details please see Appendix V, Table 17.

finished with the same qualification between 1971 and 1980. So there is a general tendency in this study that the man professors obtained their doctoral degree at an earlier time than their female colleagues. Yet we have to remember that the women in this study are younger than the men.⁴⁶

Figure 8: Time of completion of first dissertation



A large share of the professors in this study received their doctoral qualification at an Austrian university. 46.8% of the professors obtained this degree at the same university where they are still working today. In this regards there is a rather big difference between the sexes. 39.3% of the women but 55.7% of the men are employed by the university where they finished a doctoral program. Hence, the male academics managed to continue their career at the same institution at a much higher rate than the women. The trend observed on the graduates' level is consolidated by the circumstances on this level. Regarding the acquisition of the doctoral degree in a foreign country women are over-represented. 35.7% of the female and 14.3% of the male professors received it outside of Austria. Most persons who obtained the doctoral degree at an international university did so in Germany (32 respondents). Other countries are Switzerland, Australia, Finland, New Zealand, Scotland and the USA.⁴⁷ Again,

⁴⁶ Please see also Appendix V, Tables 2 and 18.

⁴⁷ Please see also Appendix V, Tables 19 and 20.

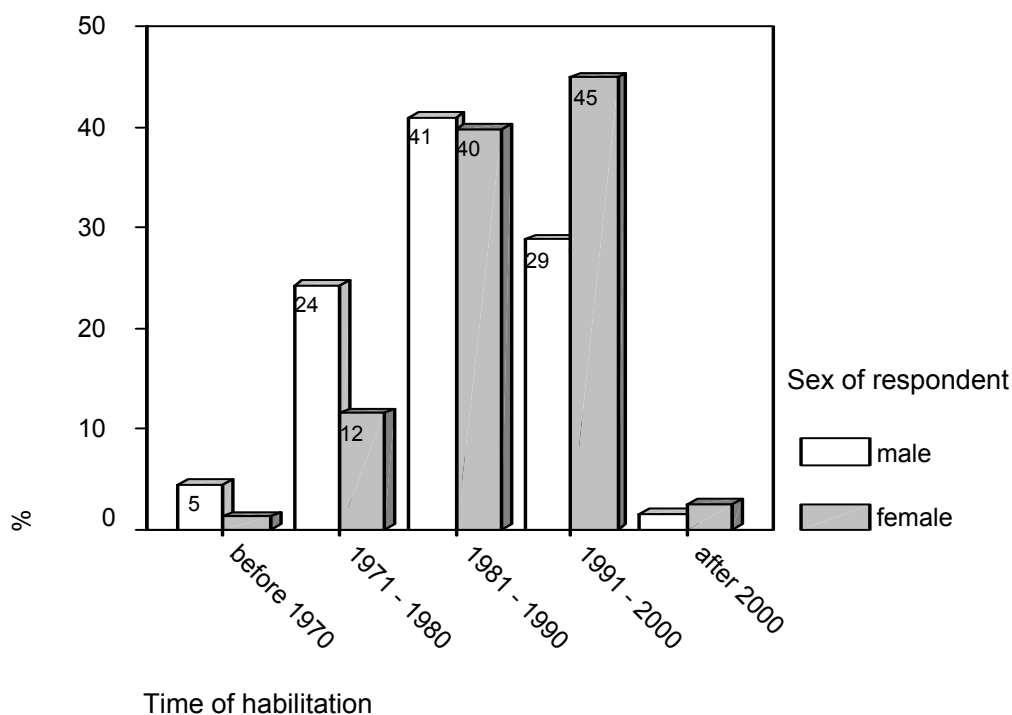
there is a strong connection between country of origin and the country where the qualification was reached. Most academics finished their dissertation in the country where they were born. Anyhow, there is a very slight tendency that academics start to become mobile to achieve a certain goal. 13 persons (5 women and 8 men) from predominantly other European countries obtained their doctoral degree in Austria whereas 3 Austrian academics (2 women and one man) received this degree in Germany and one woman did so in New Zealand. From this few figures it is impossible to make out a clear pattern. Nonetheless, there are more men coming to Austria but more women leaving the country to obtain a doctoral degree.

4.2.3 Further steps on the career ladder: Habilitation and professorship

In Austria, the appointment to become professor generally required the successful completion of a habilitation or an equivalent proof of scientific suitability.⁴⁸ When the formal criteria are met the application for a vacant position is possible. A specifically created commission suggests three appropriate applicants for a position of whom the minister chooses one person.

The majority of respondents in the present study completed a habilitation. With 92.9% for the woman professors and 94.3% for the men there is only a marginal difference between the sexes. Figure 9 shows that regarding the time of completion there is a similar trend in comparison with the time of graduation and dissertation.

⁴⁸ The new employment law does no longer have this intention.

Figure 9: Time of habilitation

Most female professors (44.9%) finished their habilitation fairly recently between 1991 and 2000 whereas most men (40.9%) completed it already one decade earlier. Yet a similar proportion of female professors did so as well. As there are still more men than women who completed this stage even prior to this the trend that the men received the qualification at an earlier point of time than the women can be observed.⁴⁹ Taking into account that the younger academics finished the habilitation later than the older ones and that the female professors are generally younger than the men this results depends partly on the age structure of the respondents. Anyhow, the younger as well as the older women in this investigation received this qualification at a later point of time in comparison to their male counterparts.

More than half of the respondents completed their habilitation at the university where they are working today. As noted before for the other two levels, this is true for more men (62.9%) than women (42.9%). In comparison with the situation at the stage of the dissertation the proportion of respondents who received this qualification outside of Austria is similar for the men (14.3%) but somewhat less for the women (29.8%). Again, most of these professors (19 women and 10 men) completed their habilitation in Germany. Other countries are Switzerland (5 women) and Finland (1 woman).⁵⁰ Parallel to obtaining the

⁴⁹ For more details please refer to Appendix V, Table 21.

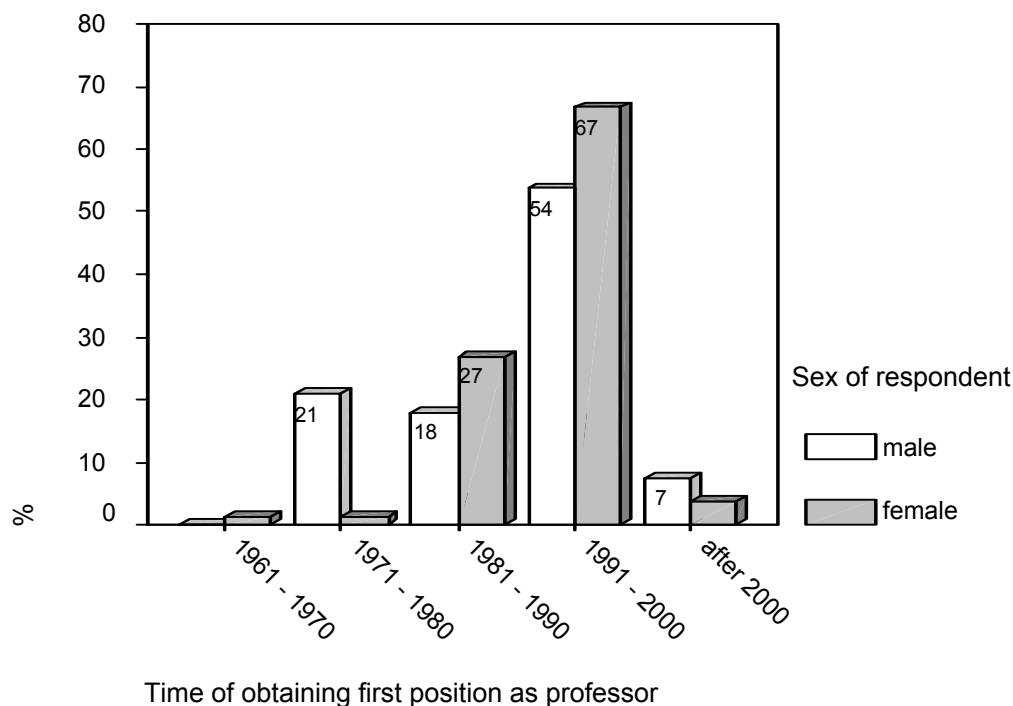
⁵⁰ For further details regarding the habilitation see Appendix V, Tables 22 and 23.

doctoral degree, there is a strong correlation between country of birth and place of habilitation. 17 of the female and 7 of the male respondents who finished this stage in Germany are also born there whereas only two Austrian woman academics but no man completed it in Germany. Across the different academic levels, it is possible to observe the trend that those academics who already obtained their doctoral degree in Austria but were born in a foreign country remain in the country and pursue their career at a national university.⁵¹

In correspondence with the completion of the habilitation most respondents (58.9%) received the title of professor rather recently between 1991 and 2000. This is also particularly true for the woman professors (62.7%). But even though most men finished their habilitation in the 1980s most of them received their professorship title in the 1990s (54.4%). Parallel to the time of receiving the title the majority of respondents (66.7% of the women and 53.7% of the men) were appointed for a position as professor between 1991 and 2000 as well. In regards to both aspects – title and position – there is still the tendency that the men reached the individual stage earlier than the women. This becomes particularly clear comparing the 1970s and 80s. Between 1981 and 1990 the women seem to be starting to catch up with the men but only in very recent years since the mid-1990s, it was possible for the majority of them to become employed as professors.⁵² Again this is only to a certain extent caused by the age structure.

⁵¹ Please compare Chapter 4.2.2.

⁵² Please see also Appendix V, Tables 24 and 25.

Figure 10: Time of obtaining first position as professor

Generally, there is a positive correlation between the time of habilitation and professorship ($r > 0.8$), which is significant for woman and man professors. Comparing the decades when the professors completed their habilitation and when they received their title and their first position as professor it seems as if the male professors had a delay in their career. When we look closer at the individual years this result has to be put into perspective. Weighing the individual medians against each other a time difference between the habilitation and obtaining the first position as professor of 6 years for women and 7 years for men becomes visible.⁵³ Therefore, we can assume that it took the female and male respondents of this study the nearly same time to get from obtaining the formal qualification to exercising the adequate occupation.

Similar to the preceding cases, most respondents received their first position as professor at the university where they are currently working. This applies to more men (78.6%) than women (70.2%). Only 4 woman professors and 4 men changed to another Austrian university. Even though there are overall less persons who got appointed for their first position as professor in a foreign country mobility seems to be increasing to some extent at this stage. 8 female

⁵³ The median for the habilitation of the women is the year 1989 with a standard deviation of 7.5 and for the men it is 1985 with a standard deviation of 8.9. The median for obtaining the first position as professor is 1995 with a standard deviation of 6.5 for women and it is 1992 with a standard deviation of 8.9 for the men.

and 6 male professors who were born in Austria moved to Germany whereas 14 women and 6 men born in Germany came to Austria. The transfer between Austria and Germany seems to be particularly relevant which may be due to sharing the same language. Regarding the professors who came to Austria at an earlier stage and already obtained other academic qualifications here, the trend that those persons stay in the country is consolidated.⁵⁴

4.2.4 Shaping University: Top management positions

Besides vertical segregation within the range of the academic positions there are also gender-specific differences at the level of the top management. This circumstance is of relevance because women are under-represented in the decision-making bodies and thus cannot influence the universities' policies as much as men. Also, it is a distinctive trait of the field of science and research that it is easier for women to find an administrative job rather than an academic position. In 2002, women make up 62% of the regular university employees in Austria but less than 24% of the academic personnel (BMBWK 2002b: 86). Also the proportion of women in top management positions in Austria is very low. In May 2003, there are no women among the rectors, the deans and vice deans as well as the chairpersons of the senate or university collegium. A small percentage of women can be found among the vice rectors (7 women vs. 31 men) and deans of studies (3 women vs. 42 men). Among the university directors there are 4 women, 7 men and one position is not assigned yet. The female share among head of institutes is somewhat higher but women are still under-represented on this level as well.⁵⁵

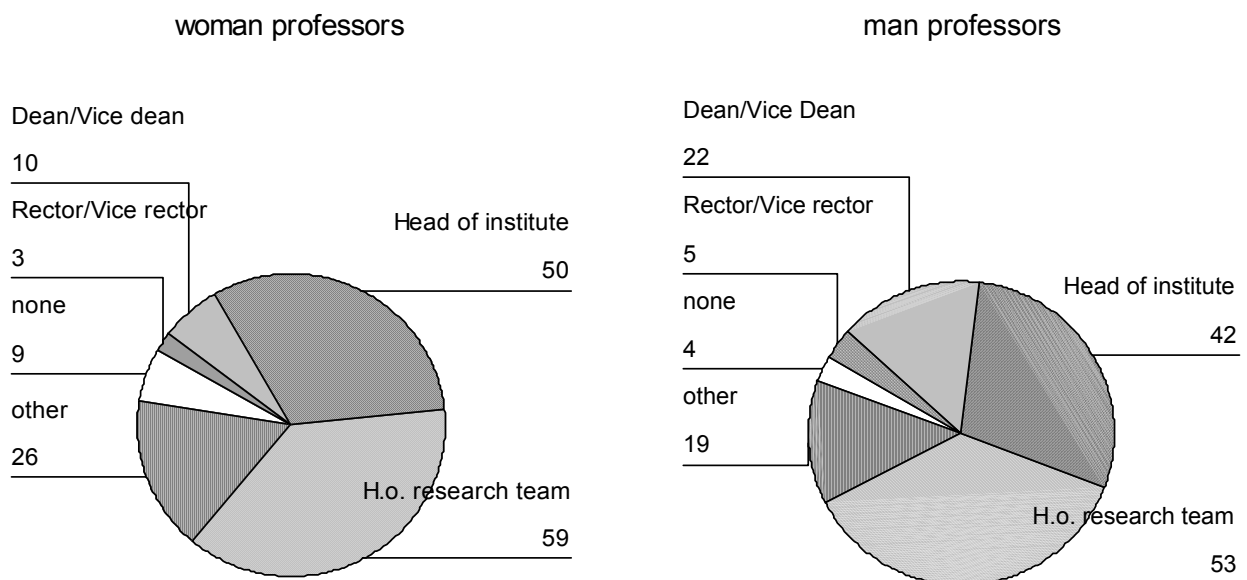
Looking at the situation of the professors in this study the picture is much more balanced. Evaluating the numbers we have to keep in mind though that the question of the survey was if the respondents *ever* held one of the respective positions. Hence the data does not explicitly relate to the current situation but

⁵⁴ For further information see Appendix V, Tables 26 and 27.

⁵⁵ The numbers given are based on own counting by the author of the indications at the webpage of the Federal Ministry of Education, Science and Culture (<http://www.bmbwk.gv.at/start.asp?bereich=7&OID=4875&11=756&12=799&13=799> on 02/05/2003). The proportions are also issue of the women's report of the ministry but currently, only old material is available (BMBWK 2000: 61-67). They are also mentioned in the national report on the situation of women in science (<http://www.cordis.lu/improving/women/reports.htm> on 19/11/2002).

gives information including former circumstances.⁵⁶ Altogether, a large proportion of the respondents held some sort of a management position at some time. Figure 11 shows that most professors were engaged as head of a research team at one stage of their career. Another large number of respondents held the position of head of institute. With 59.5% of the female and 60% of the male respondents there is basically no difference between the sexes. On the higher levels of the hierarchy men dominated also in this study. 10 woman professors but 22 male academics ever held the position of dean or vice dean and 3 women but 5 men were rector or vice rector of a university. 10 women professors but 22 male academics ever held the position of dean or vice dean and 3 women and 5 men were rector or vice rector of a university.

Figure 11: Respondents in management positions



Source: Own elaborations, numbers in total

Furthermore nearly all respondents got involved in some other kind of position in the field of science and research. Most respondents (91%) acted as reviewer of accomplishments of other researchers. There is hardly any difference between women and men. With 52.4% the woman professors are more highly represented in decision-making bodies in scientific institutions than their male colleagues (44.3%) but those have a higher share among members of national

⁵⁶ The original questionnaire for the survey also contains the question of *when* the respective respondent held the position. Unfortunately, I did not obtain this information from the SUZ and have to assume that these details were not collected.

professional associations (47.1% of the men vs. 38.1% of the women) and in editorial boards (68.6% vs. 56%).

Regarding the same positions in an international context the female and male academics show a rather similar pattern. Anyhow, the women seem to be somewhat less represented in the decision-making bodies of professional associations but are stronger represented in those bodies at research institutions. Regarding the positions in the non-academic field the women of this study are mostly less represented than their male colleagues. 36.9% of the female respondents and 27.1% of the men stated that they had never held one of the indicated positions.

4.2.5 The academic career - between continuity and interruption

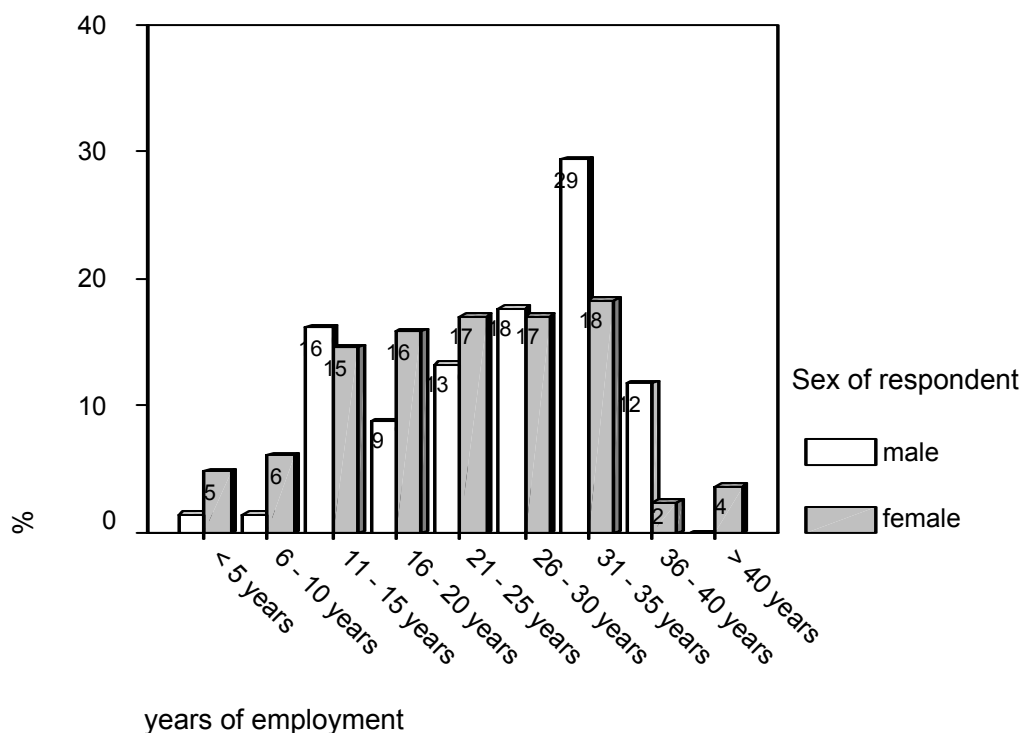
Career paths in academia often have different outlines. They are sometimes interrupted due to self-determined or uncontrollable reasons but can also be rather continuous following along the various stages of the career ladder. Contrary to the situation of the female junior faculty, fairly straight career patterns dominate among female and male university professors. Yet women report of more problems than men that start to become relevant from the level of lecturer/professor onwards (Buchinger et al. 2002: 111). In the following, I will briefly summarise the results of the survey regarding the time between the individual steps on the career ladder, the number of appointments at the different stages and the length of employment in the university system as well as the findings regarding interruptions of the occupation.

The professors in this investigation were not asked about the time it took them to get to the single steps on the academic career ladder. But since the data on the years when the respondents reached certain stages is available it is possible to roughly compare the average values. As a result, no big difference between the sexes becomes apparent. After the completion of a dissertation it took the respondents about ten years to finish a habilitation. At this stage, the women needed approximately half a year longer than the men. On the next level, until getting the title as professor men tend to have needed some more time than women but at the last stage, it took longer for women to obtain the first position as professor than it did for men. The men in this study virtually received a

position as professor straight after they had obtained the title whereas women needed approximately one year for this.⁵⁷

Regarding the employment situation of the respondents between graduation and dissertation the women of this study tend to have fewer positions than the men. 39.8% of them and 34.8% of the men had only one appointment whereas 9.6% of the women and 18.2% of the men had two positions. Additionally, more woman professors than men did not have an appointment at all. At the time between dissertation and habilitation, the respondents generally held more appointments. Only 15.3% of them did not hold a position at all and most of them (54.7%) were employed in one job. With 20.6%, man professors dominate among those persons who have been employed in two positions but women dominate among those who have been employed three times. This trend is consolidated between habilitation and the first position as professor. Most respondents (53.9%) held only one position during that time. On this level, women clearly dominate among those who held two positions (21.7%) and men among those with one (56.5%). This situation is reversed at the time between the first appointment as professor and the present. Here, men are fairly dominant among those with two positions (22.4%). Generally the majority of respondents (64.7%) has held one appointment, which means that they are still employed in the same position since their first appointment as professor. There is hardly any difference between the sexes in this context. Generally, it becomes clear that over time and with climbing up the career ladder the academics have to show less occupational mobility and are able to remain in one position.

⁵⁷ The circumstance that it takes longer for women to find a position as professor cannot be explained with the assumption that they have to apply more often for a post as their average number of applications is lower than the one for the men in this investigation (please see also Chapter 5.2).

Figure12: Length of employment at a university or research institute

Altogether, the majority of professors (92.7%) who responded to the relevant question has been employed at a university or research institute for more than 10 years. This is valid for 89% of the women and even 97% of the men. Generally, the woman professors of this study tend to be employed for a shorter time than their male colleagues. The average for women is below 23 years whereas it is 26¼ years for men. Also the median for the length of employment of the women (23 years) lies below the one for men (29 years).

Looking at the length of employment at the current university the time periods become shorter. Here, 61.3% of the respondents have been employed for more than 10 years. This development is even more veritable for the female than it is for the male professors. Only 48.2% of the women but 77.7% of the men are employed by the same institution for more than a decade. The average length of employment at the current university lies at 13½ years for women and 20½ years for men. Also the median shows that women have been employed for a shorter period of time. It lies at 10 years for women and at 20 years for men. From these findings we can assume that women were able to professionally enter the academic system at a later point of time than their male colleagues.⁵⁸

⁵⁸ Please see also Appendix V, Tables 28 and 29.

Only few professors in this study say that they had any interruptions in their career. Yet there are 15 women but only 8 men who say that they had a break of more than 6 months. Of the women 12 are currently married or living in a relationship which applies to all of the men. Additionally, 13 of the women and 6 of the men have children.⁵⁹ The female respondents also had longer breaks. Their average length of an interruption is lower (17½ months) than it is for men (24¼ months) but this is due to one single male outlier 8 (a father of 3 children) who has taken a break for 8 years. Eliminating this case, the average for men is reduced to 14 months. The median is 18 months for women and 12 months for men and therefore underlines the assumption that women show longer periods of interruption. There are also gender-specific differences regarding the reasons for the pauses. Of course, none of the women and only one man mention military or civil service. Moreover, only one men mentioned unemployment as a reason for an interruption. One woman but no man stated that she took a break to look for a more interesting occupation. The biggest difference though exists with childcare. 12 women but only one man said that they interrupted their academic appointment due to childcare responsibilities. The six other woman professors who have an interruption in their academic career mention reasons such as staying abroad, a court year, work in a publishing house and the death of the father. For the man professors other reasons are a stay abroad, taking time off, a scholarship, gaining practical experience and further vocational training.⁶⁰

5. Career conditions for woman and man professors

5.1 The individual commitment of the academics

Career progression at university requires a high amount of individual commitment from the academics. In general, the number of relevant publications is the most important criteria to measure academic success. The engagement for students and junior academics as well as teaching are also a sign of personal commitment and part of the academic profession but do not lead to recognition in the scientific community. Thus, these can be problematic if they are time-consuming and leave too little room for research. Also spatial mobility can be a requirement for career progression. To find out whether female academics have to show even more commitment than their male colleagues to be successful I will analyse if there are any differences regarding those aspects between the female and male respondents of this survey. For this purpose, I will take the

⁵⁹ The figures regarding interruptions can be found in Appendix V, Table 30. The possible relation of interruptions and childcare responsibilities is dealt with in Chapter 5.3.

⁶⁰ Due to the very small number of cases it is impossible to prove a correlation between the length and the reasons for interruptions.

information on the number of publications (question 25), other demands of academic work (questions 29 and 39) as well as on the mobility of the professors (question 27) into account.

Regarding the different activities that are related to publishing (i.e. editing and authoring various kinds of publications) the female respondents of this study state more often than their male colleagues that they have not published any works during the last two years before the survey. Also the man professors are involved in a greater number of publications than women. They show greater activity in the areas of editing and authoring scholarly books in Austria, publishing articles in academic books or journals, writing research reports or monographs for projects funded in Austria and articles for national newspapers or magazines. The woman professors only slightly dominate with writing articles for newspapers or magazines outside the country. Altogether, the number of publications of the female academics show a greater deviation, which means that the individual women published very different amounts of works. Some are very productive whereas others do not seem to publish much work at all. High numbers of publications among the female academics are particularly true for articles written for newspapers or magazines in Austria. Here one woman professor claims to have published 100 articles. Also in the case of pieces written for newspapers or magazines abroad one women states to have published 60 works. These numbers seem to be unusually high. For the men, these variations are less obvious even though there are a few statistic outliers that mention rather high numbers of publications as well.

Considering marital status and children no clear influence on the number of publications becomes apparent. Single women show marginally more activity in some areas, particularly with publishing articles in academic books and journals in Austria. Anyhow, those women who are either married or living together with a partner have edited more books in Austria and have written more research reports or monographs for projects as well as articles in newspapers and magazines. Therefore, no statistically significant difference can be detected.⁶¹ The picture is similar for woman professors with or without children. On the one hand there are some areas where female academics who do not have children slightly dominate. This is particularly valid for the task of editing. On the other hand the mothers in this investigation show a high degree of activity in several other fields such as publishing articles in academic books or journals at the

⁶¹ It is not possible to make a distinction between single man professors and the ones that are engaged in a relationship as there are too few men that are single (4). This is also valid for analyses in the subsequent chapters.

national level.⁶² Hence children do not inevitably have a negative impact on the productivity of the female academics in this study. The same can also be said for the fathers in this investigation. Moreover, they are even more productive than their colleagues who do not have children.⁶³

From the survey, no information on the distribution of tasks is available. Hence, it is not possible to say anything about the individual workload of the academics and gender-specific differences regarding research, care for students and teaching as well as administrative duties and the involvement in committees. Anyhow, there is information on the feelings of overload in the different areas of academic work. Regarding teaching, there is basically no difference between the woman and man professors in this investigation. Nearly 43% of both groups do never or seldom feel an excess of work due to their teaching obligation whereas more women (19%) than men (12.9%) often feel this. Furthermore, the female respondents experience less often overload due to research than the male respondents. 42.9% of the women but 25.7% of the men say that they never have this feeling. Regarding administrative work the woman professors more often have the feeling of overload than their male colleagues. 76.2% of the women and 65.7% of the men in this investigation say that this happens often or even very often. This is similar in regards to serving in committees. Here, 59.6% of the female academics and 47.1% of the men have the impression that this task takes on too much time and effort.⁶⁴ Altogether the women have the feeling of an excess of workload more often than the men but this happens much more often in the areas that are not directly related with the scientific work as such.

From the answers of the question on how many junior colleagues the professors supported in their career development it seems as if the male academics show a greater engagement than the women. They take over more supportive functions such as assistance with grants or publishing articles than their female colleagues.⁶⁵ This finding leads to the assumption that woman academics do not take on a heavier load of work regarding the support of junior academics and which thus should not counteract their productivity in terms of research results.

⁶² It is necessary to be aware that the one woman professor who claims to have published 100 articles falls into this category.

⁶³ Since there are fewer man professors without children (15) than fathers (54) in this investigation this finding does not give strong evidence. In addition, the result depends on the age structure of the male academics as well.

⁶⁴ The professors also mention further factors that can lead to overwork. Those aspects are mainly connected with the general conditions at work such as university reforms, unsatisfying infrastructure and a high number of students.

⁶⁵ There is also the tendency that the man professors are more likely to support male junior academics whereas the woman professors tend to support female academics.

Anyhow, it is questionable if the professors have the same definition of support and their behaviour takes on similar forms. Because of this and a lack of information on other related issues such as the extent of support of students this is not a reliable result.

Regarding spatial mobility as another demand of an academic career the professors in this investigation are most mobile between obtaining their doctorate and their habilitation. For both, women and men this is decreasing on the further steps of the career ladder. Generally, the woman professors show greater activity than their male colleagues. For most time periods, the female respondents state more often that they have spent more than three months abroad to study, teach or to do research. This is true for the time before they received their doctorate (41.7% of the woman and 25.7% of the man professors) and before their habilitation (57.1% vs. 55.7%) as well as before the first position as professor (36.9% vs. 27.1%). Later on, after they obtained the first position the situation is reversed. Now, the man professors (24.3%) are more mobile than the women (20.2%). These findings confirm the result of Chapter 4.2 where it was already observed that the women show a higher degree of mobility than their male colleagues with obtaining their academic degrees.

Comparing the variables “mobility” and “age” no significant correlation can be noticed. At some stages (i.e. before obtaining the doctoral degree) the younger academics state more often that they were mobile whereas in other cases (for the women this is between habilitation and first position as professor) it is the older professors but generally there is no coherent pattern. Regarding the marital status the single woman professors are more mobile than their female colleagues that are engaged in a partnership. Of course, there are variations at the different stages of the career. Both groups of women state to more or less the same degree that they went abroad before they finished their dissertation whereas the single women are always more mobile at the subsequent stages. Consequently, single women are the most mobile academics in this investigation because it is possible to assume that most of the women were not yet married before they obtained their doctoral degree.

Among the professors there are also variations according to children. More mothers than woman professors without children but fewer fathers than childless men say that they spent some time abroad before obtaining their doctoral degree. At the time between dissertation and habilitation more women without children than fathers went abroad. Between habilitation and the first position as professor more of the mothers and fathers than academics without children lived in another country. Hence, children do not necessarily constitute an obstacle for the

academics' mobility. From these statements it is not possible to see whether or not the individual academics already had their children when they went abroad. Comparing the times when the academics went abroad with the periods when they got their children an unclear picture arises. It appears as if a lot of professors actually already had children when they went abroad. This is true for the women as well as for the men in this investigation. Anyhow, the academics tend to have more often children when they are already at the higher stages of their career. Few woman and man professors already had children before they finished their doctorate whereas most mothers and fathers in this study had their children before they received the first position as professor. Of the mothers, a large proportion did not go abroad after they had their first child. Anyhow, there seems to be a tendency that the younger women also spent some time in another country when they were already mothers. For the man professors it seems to be less important if they are fathers or not when they go abroad. This is even more so at the higher stages of the career ladder.

5.2 The importance of support for an academic career

To successfully pursue an academic career support from colleagues and superiors is a very important condition. At this point, I want to analyse whether female academics receive less assistance than their male colleagues and therefore, face a more difficult situation regarding career progression. In terms of personal assistance it is interesting to see who supports the academics (questions 21 and 22). For some deeper insight, I will also look at the evaluation of the respondents which factors played an important role for obtaining the position as professor (question 23). Moreover, support can also happen in form of financial aid such as scholarships or the financing of research projects (questions 8.6, 11.6, 14.6, 26 and 28). To see if the experiences of woman and man professors regarding difficulties with an academic career differ I will also take into account how often they applied for their first position and if they had personal encounters with discrimination (questions 24 and 67).

The man professors in this investigation mention to a relatively higher degree that other academics supported them. Particularly male professors at the same department (81.4%) or at other institutions (52.9%) seem to play an important role. Also male colleagues at the department (47.1%) or at other institutions (37.1%) are of help. In comparison, the woman professors received less assistance from other academics. Yet most of them also got most help from male professors at their departments (69%) or from other institutions (46.4%). Similarly, also male colleagues at the department (28.6%) or outside the

university (31%) seem to be of importance. For both the female and the male respondents woman professors and colleagues are less important. This could be due to the under-representation of women in academia in general. Altogether, the man professors state more often that they received support from other academics than their female colleagues do.

The support of colleagues seems to be particularly relevant regarding publications. 46.4% of the woman professors say that male colleagues were helpful in this sense and 32.1% say this about female colleagues. For the man professors the colleagues seem to be even more important. 65.7% claim that male colleagues were helpful with writing and publishing articles or books and 40% say that female colleagues were helpful. The relatively high importance of female colleagues has to be seen in the light that not only contacts with publishing houses could have been established with the help of colleagues but that scientific advice and simple proofreading are forms of assistance as well. Regarding stays abroad male colleagues are also supportive. 38.1% of the female and 42.9% of the male respondents say this. In contrast, female colleagues play a less important role. Male colleagues are also important when it comes to obtaining a position at university. This is equally true for the woman (36.9%) and man professors (37.1%) in this study. For the woman professors the female colleagues are also influential (20.2%) but they play a significant role for only few of the man professors (10%). Altogether there are more female respondents (32.1%) than male ones (15.7%) that state that colleagues were not helpful regarding any of these aspects. Hence in most cases, male academics seem to receive more support from colleagues than women. This is particularly the case with the assistance from male colleagues. Since woman professors tend to get more help from female colleagues than man professors it is possible to assume that the under-representation of women in academia leads to an unfavourable situation for the female academics and that this could lead to the preservation of the male-dominated system. Yet the differences between the woman and man professors are not very large. Anyhow, we have to consider that the persons in this investigation are the ones that succeeded in their career aspirations as they have reached the position of professor.

Evaluating different factors that may have influenced the attainment of the position as professor 55.7% of the men but only 29.8% of the women think that the former cooperation with other scientists at the recent university were important. 48.6% of the man professors and 40.5% of the women also think that other personal contacts were relevant. Furthermore, 21.4% of the male and 16.7% of the female respondents say that formal or informal positions outside

academia played an important role. Apart from equal opportunity measures⁶⁶ the percentage of man professors that mention cooperation, contacts or holding a certain position as being important when obtaining the position as professor is much higher than the one of women. Thus it is possible to assume that the men have a better knowledge about institutional structures and that they are able to use this understanding for their own benefit.

Regarding financial support of academic training and development, grants and scholarships are particularly significant at the first steps of the career ladder. 32.5% of the woman professors and 20% of the men state that they primarily financed their doctorate with the help of a scholarship whereas 17.7% of the female and 11.9% of the male academics mention this means for financing their habilitation. Between the time of the academics' habilitation and their first position as professor grants and scholarships are hardly important at all. Only 3.6% of the female respondents and 8.7% of the men name those as a way to finance this step of the career. From these figures we can conclude that the women in this investigation received more often financial support in form of grants and scholarships than their male colleagues did. Anyhow, it does not become clear if women are more successful with applying for these means or if they used the opportunity of special women's funds. Since men finance the different steps of their academic qualification through regular employment at a university or research institute to a higher degree than women it is also possible to assume that women have to rely on grants because they have more difficulties to find appropriate employment.

Taking into account the answers of the professors regarding the question how often their research projects were financed in the past two years through different means the findings become modified. There is hardly any difference between the sexes. Most woman professors (52.4%) as well as men (57.1%) claim that they received at least once financial support from the national, regional or local government. A large share of the female (40.5%) and male academics (51.5%) also name national research funds as a source for funding projects. Altogether, the man professors in this study obtained more often financial support for research projects than their female colleagues. For the professors national, foreign or international institutions hardly ever take over the financing of stays abroad for academic reasons. In the past five years, between 7.1% and 10.7%⁶⁷ of the respondents state that they received at least once a

⁶⁶ 32.1% of the woman professors mention that equal opportunity measures were important.

⁶⁷ 7.1% of the man professors and 10.7% of the woman professors state that they received at least once support from a foreign institution to pay for a stay abroad.

stipend or grant for this purpose. Even though altogether more female respondents say that they received financial support by an institution the respective man professors got it more frequently. Few men were even given grants up to five or six times. Therefore, the women in this study seem to have obtained support more often to finance the individual steps of their qualification whereas there is only a slight difference regarding financial aid for stays abroad. Moreover, the men seem to find themselves in an advantageous situation when it comes to the funding of research projects.

To finish with the aspect of the importance of support for an academic career it could be informative to see whether or not female academics actually face a more problematic situation regarding career advancement than men. Looking at the numbers on how often the professors applied to obtain their first position as professor the female respondents (51.2%) state more often that they submitted only one application than their male colleagues (44.3%). On average, the women had to apply 2.7 times for their first post whereas the men had to apply 4.8 times. Since there are some cases that differ very much⁶⁸ it is necessary to also look at the median, which is 1 for the female and 2 for the male respondents. So in general, the women were slightly more successful with their applications than the men and thus do not seem to have faced a disadvantage.⁶⁹ Contrary to this result the women felt more often discriminated when applying for professorship than the men did. 45.3% of them say that they were discriminated at least to a medium degree. Among them are 11.9% who found that even very often. Of the man professors, 24.3% say that they felt discriminated to at least some extent. Comparing the results of the two questions no correlation between the number of applications and the feeling of discrimination can be detected. From these two ambiguous findings the question arises in which way woman academics are actually discriminated when applying for professorship. To examine this matter it would be necessary to analyse the concrete promotion procedures at the individual universities.

5.3 Reconciliation of professional and private life

Reconciliation is one of the major issues in recent research on the situation of women in academia. As outlined in Chapter 2, women still take over most of the household and childcare responsibilities, which often leads to interruptions in

⁶⁸ Two man professors claim that they had to apply 50 times.

⁶⁹ This result is confirmed by the findings in Chapter 4.2.3 where it became clear that it took the woman professors in this study a little less time to obtain their first position as professor after they finished their habilitation.

the career path and to personal strain. In this chapter, I will present the findings regarding the distribution of domestic chores and childcare (questions 20.3, 20.4, 55 and 59). In addition, I will also show the consequences of these circumstances for the individual academics regarding their personal and professional state (questions 2.6, 40, 56, 57 and 58).

As shown in Chapter 4.2.5, most professors do not show any interruptions in their career. No woman and no man professor did so to care for relatives. Regarding childcare, 12 woman professors but only one male academic took a break. Accordingly, only one man professor but 12 women say that they themselves primarily took care of the children during working hours when they were still under school age. Additionally, 11.1% of the mothers but 66.7% of the fathers in this study mention their partner as having the main childcare responsibility. 22.2% of the woman professors and 16.7% of the men state that they equally share the work with their partners. To lift some of the burden, 15.6% of the female academics choose privately financed childcare including babysitters and 11.1% use public facilities. None of the men mention these options.⁷⁰ As a consequence the women in this study actually have most of the childcare responsibilities whereas the men can still depend on their wives or partners to do so.

Regarding the question who carries out the domestic work in the household nearly one third of all female respondents state that they take on more than half of the work and one fifth says that they even carry out all duties in the household. In contrast, the majority of men states that they take on less than half of the chores and only few say that they carry out more than half or even all chores. Looking particularly at the respondents who are currently involved in a relationship it seems as if these women and men receive some kind of relief from domestic duties as they claim to carry out less work in comparison to the overall number of respondents. Yet the female professors still take on more work than the male academics. Assessing the statements of the respondents with children also both, female and male professors take on less duties than their colleagues without children. Generally the male professors with children are the ones who taken on duties to the least extend.⁷¹ Altogether, the women in this study take on much more of the household duties than the men whereas particularly the fathers seem to have someone else to take care for these chores.

⁷⁰ Please see also Appendix V, Table 31.

⁷¹ For more details see Appendix V, Tables 32.1 - 32.3.

This divergent distribution of responsibilities among women and men subsequently leads to different assessments of their influence on the professional situation and personal experiences of encumbrance. The woman professors in this study think to a higher degree than their male colleagues that they cannot combine their professional with their family life. 14 female respondents but only two men think this. Yet a large percentage of the professors (41.7% of the women and 54.3% of the men) hold the opinion that they can combine both spheres. In this context it is interesting to notice that particularly the single women think that it is not feasible to combine work and family (47.3%) whereas the ones who are engaged in a relationship think that it is possible (49%).⁷² Even though there is a slight tendency that mothers are more likely to think that it is feasible to coordinate both areas than the women without children it is not possible to make a clear distinction. This is similar for fathers and childless men. Furthermore, the women experience conflicts between the demands of work at university and the demands of family life more often than the man professors in this study. 41.6% of the female academics but just over a fifth of the men face those problems often or very often. Accordingly, the relative number of men who hardly ever experience any conflicts is higher than the one of women. Here, the female academics who have a partner as well as the mothers encounter more conflicts than the single women. For fathers the situation is less problematic. Additionally, more woman than man professors state that it was often a problem to look after the children. 40% of the mothers but only 3.7% of the fathers say that their childcare responsibility impaired with the demands at work often or even very often. This of course, is particularly true for the single mothers.⁷³

Regarding the question to what extent the academics had to make personal sacrifices to get to where they are today the women state to a higher degree than the men that they generally had to give in in certain areas. Many woman professors claim that they had to sacrifice their leisure time because of their academic career (88.1%). Even though there is also a large number of men who say this (77.1%) much more women say that it even happened very often. The difference between the woman and man professors becomes bigger regarding friends and social contacts where 66.7% of the female and 34.2% of the male academics say that they had to make sacrifices. Concerning the time with partners and children the difference between the sexes is less significant but it still exists. 38.1% of the women and 27.2% of the men think that they have less time for their partners due to the demands of their career. Additionally, 22.9% of the women and 15.8% of the men think this regarding the time for their children.

⁷² More than a quarter of each group of women holds a neutral view.

⁷³ For details regarding the assessments of all respondents see Appendix V, Tables 33 - 35.

Hence, the woman professors seem to have made greater sacrifices than their male colleagues to successfully pursue an academic career.

In relation to their situation at work, the women have slightly more often experienced symptoms of overwork such as exhaustion, anxiety or feeling burnt out than their male colleagues. In general, a large number of professors (39.3% of the women and 51.5% of the men) state that they never or only seldom made these experiences. Anyhow, twice as many woman professors (28.6%) than men (14.3%) suffered from these conditions in the year before the survey took place.⁷⁴ In this regards there is hardly any difference between the single woman professors and the ones that are engaged in a relationship. Surprisingly, there is also hardly any variation between mothers and woman professors without children. The mothers are only slightly more affected by symptoms of overwork. For the man professors this situation is somewhat reversed. The male academics who do not have children marginally more often claim to have found the above-mentioned negative experiences than the fathers.

5.4 The influence of the social environment on the career

As described in Chapter 2, the social background as well as the current environment can have some influence on an academic career. The outlook of parents, the position of the individual in the family as well as recent friends and partners play a role in the personal and professional development of the academics. In the following, I will analyse the educational and professional status of the professors' parents and if they supported their children with their career (questions 21.7, 72 and 73). Additionally, I will try to find out what positions the academics have among brothers and sisters or if they are single-children (questions 75 and 76). Furthermore, the role of the partners will be investigated by looking at their education and their attitude towards the academics' position (questions 21.6, 48 and 72).

Most mothers of the female respondents (39.3%) finished the lower level of secondary education or second stage of basic education (level 2 according ISCED 1997).⁷⁵ 13.1% the women's mothers finished primary education or first stage of basic education (level 1) and 19% completed upper secondary education (level 3). 11.9% graduated for university or finished some other kind of tertiary

⁷⁴ For further details please refer to Appendix V, Table 36.

⁷⁵ An outline of the different educational levels according to ISCED 1997 can be found at http://www.unesco.org/education/information/nfsunesco/doc/isced_1997.htm.

education (level 5) and 9.5% hold a doctoral degree (level 6). Only one female professor mentions that her mother did not receive an educational qualification at all. Of the man professors' mothers, most finished lower secondary or vocational education (35.7%). Another large proportion completed primary education or upper secondary education. 1 mother received a university degree and 3 obtained a doctorate. Consequently, the mothers of the female professors are somewhat better qualified than the mothers of the male professors. Most fathers of the female professors hold a university degree (27.4%) or have finished a lower secondary education (25%). The percentage of fathers holding a doctorate (14.3%) is also relatively high. Most fathers of the man professors have finished lower secondary education (25.7%). Also a large proportion holds a doctorate (21.4%) or completed primary education (17.1%). Generally, also the fathers of the woman professors are better qualified than the ones of the man professors but the differences are less obvious. While the women's fathers dominate among those with a university education there are more fathers of the men though who hold a doctoral degree. Thus, parents of the female academics in this study are better educated than the ones of the men. Also, altogether the fathers of both women and men have obtained higher qualifications than the mothers.⁷⁶ Distinguishing between the different disciplines⁷⁷ it is interesting to notice that the parents of those woman professors who are working in education, the humanities and social sciences have lower qualifications than the parents of those working in agriculture, engineering, health and welfare as well as science. 28.6% of the mothers of the second group and even 60.6% of the fathers either finished tertiary education or hold a doctoral degree. This clear distinction between the disciplines cannot be made for the parents of the male professors in this investigation.

At the time the respondents were 14 years of age most mothers were housewives. More than half of the woman professors' mothers (52.4%) were looking after the household. 14.3% of them were employed as white-collar workers and 9.5% were working as teachers. Among them were no women in high positions and only few businesspersons or faculty members at university. Also most mothers of the man professors were housewives (62.9%). 10% of them were white collar workers, and only few were teachers, business persons, civil servants or professionals such as lawyers or physicians (2.9% each). All in all, the mothers of the women were working to a slightly higher degree than the mothers of the male academics. Most of the female academics' fathers were

⁷⁶ It is not possible to calculate if the differences are significant because too many cells (37.5% and 50%) have an expected frequency less than 5. Please see also Appendix V, Tables 37.1 and 37.2.

⁷⁷ Please compare footnote 40.

working as white-collar workers (27.4%). Also larger shares are found among civil servants and managers in higher positions (11.9%) as well as in middle positions (8.3%). 6% were faculty members at a university and 7.1% blue collar workers. Most of the man professors' fathers were either white collar workers (18.6%) or civil servants or managers in a higher position (17.1%). 12.9% were professionals, 11.4% blue collar workers and 10% civil servants or managers in a middle position and 5.7% were faculty members at university. Mainly, the fathers of the female and the male professors of this investigation held similar positions. The women's fathers only dominate among white-collar workers. In comparison to the mothers, the fathers were working to a much higher degree and also held higher positions. Relating this finding to the age of the respondents there is no clear tendency that the mothers of the older academics stayed at home and looked after the household whereas the ones of the younger professors tend to have been employed. Albeit this trend can be found among the mothers of the woman professors it is reversed among the ones of man professors.⁷⁸

From the questionnaire only little information on the role of the parents regarding the career is available. 23.8% of the woman professors and 21.4% of the men state that female family members were influential. The same number of women (23.8%) and 18.6% of man professors say this about male family members. Anyhow, those persons do not necessarily have to be the parents. In terms of financial aid, 34.9% of the women's and 37.1% of the men's parents or other family members supported them while they were working on the dissertation. There is no correlation between support and professional status of the parents. In the course of the professional development the academics become more independent. Only 6.3% of the woman and 1.5% of the man professors received financial support from their family while working on their habilitation.

Most professors in this investigation have brothers and sisters (77.3%) even though with more than one fifth, the single-children make up a rather large share as well. In this regards, there is basically no quantitative difference between the sexes. Taking the age structure into account, no continuous pattern becomes visible. Though the younger man professors are less often single-children this is not true for the women. Of the professors with siblings, most are the first-born child in the family (44.5%). With 49.2% this is particularly true for the women. Many professors are also the second-born child of the family (33.6%). Again,

⁷⁸ The percentage is 63.2% for those woman professors who are older than 50 years and 45.5% for those who are younger but it is 57.9% for the man professors older than 50 years and 71% for those who are younger.

the female professors dominate in this category.⁷⁹ Comparing these findings with the age of the respondents there is a minor trend that the older professors are slightly more often the first-born child than the younger academics. In summary, professors are often either the only child or the first-born in the family. This is more the case for women (59.5%) than it is for men (51.4%).

Among the professors that are or have been engaged in a relationship is a relatively high share of persons with partners who hold a university degree (38.2% of the female and 33.8% of the male professors' partners). Also the number of partners with a doctorate is similar. Additionally, 4 of the women's and 2 of the men's partners obtained a habilitation. Generally, the partners of the woman professors are somewhat better educated than the ones of the men but this difference is statistically not significant.⁸⁰ Comparing the two groups of disciplines, the partners of those women who are working in the "hard" sciences seem to be better qualified whereas there is hardly any difference for the partners of the male professors. Taking the age of the respondents into account it appears as if the younger professors' partners have better qualifications. Regarding the profession, most partners of the female respondents are either faculty members at a university (27.7%) or self-employed (25.5%). The former is particularly true for those woman professors working in the second group of disciplines and who are older than 50 years of age whereas the latter for those in the first group and who are younger. Also 14.9% of the women's partners are employees and 10.6% are civil servants or managers in higher positions. The largest proportion of the man professors' partners are employees (26.2%) which is primarily the case among those men in the "hard" sciences and who are younger than 50 years. 18.5% of the partners are looking after the household which mainly occurs among the man professors who are older than 50 years. 15.4% are teachers and the same number is self-employed whereas 13.8% are faculty members at a university. None of the partners of both the female and the male academics in this study are blue-collar workers or farmers. In general, the partners of the woman professors are not only slightly better educated but can also be found in higher positions than the ones of the men.⁸¹

⁷⁹ Anyhow, according to the results of the chi-square-test the dominance of women among the first- and second-born children is not statistically significant.

⁸⁰ Please see also Appendix V, Table 37.3.

⁸¹ The question arises *why* the women's partners are found in higher positions than the ones of the men. Since we can assume that most partners of the woman professors are male a possible explanation could be the fact that men generally dominate at higher ranks. Additionally, if male academics depend on the support of an extra person at home the partner cannot have a very demanding occupation. Furthermore, some research results support the idea that female academics get intellectual assistance from their partners (see Chapter 2). Therefore, it would be helpful if the partner had a good qualification.

Since many of the professors in this investigation are or have been sharing their lives with another person the question arises whether or not the partners influence the course of the career. In response to the question who influenced the academics' careers 46.4% of the female respondents and 38.6% of the men state that it was the partner. In comparison to other persons, the partner seems to have a rather high degree of influence. Only male professors and colleagues play a more or equally important role whereas friends and family are less influential. Hence, if the partner can influence the professional development of an academic her/his attitude towards the professor's occupation should matter as well. 51.1% of the relevant woman professors think that their partners have a very positive attitude towards their present position and its demands. 29.8% assume that it is positive and 14.9% believe that it is neutral. Among the corresponding man professors 35.4% think that their partners stance is very positive, 56.9% assume that it is positive and 7.7% guess that it is neutral. None of the female and male professors think that it is negative. Generally, the attitudes of the partners are rather positive but the partners of the woman professors seem to have an even more affirmative stance. From this result, it is possible to assume that a positive attitude of the partner is very helpful for a career at university. In this regards, female academics seem to be even more dependent on the support of partners to be successful than male academics.⁸²

5.5 Attitudes towards women in society and science

The fifth and last assumption that I want to compare with the findings of the survey deals with the attitudes and the behaviour of men as it plays a crucial role in the realisation of equality at the workplace. For this, I will focus on the questions that are dealing with the opinions on the position of women in society and science as well as the ones regarding equal opportunity measures (questions 60-62 and 64). To find out if these attitudes are also in conformity with the behaviour of the scientists I will also take the questions concerning household and childcare duties into account (questions 20.3, 55 and 59).

Regarding the question why women are under-represented on the top positions in society the man professors do not think that this is the women's fault but see the reasons for this circumstance in external factors. More than 80% of them disagree that the low percentage of women on the top ranks is caused by the

⁸² Anyhow, from the available data it is not possible to clearly identify in what way the partners may be supportive. Regarding financial aid, partners play only an insignificant role. 3.6% of the women's and 1.5% of the men's partners financially supported the academics during their dissertation and even fewer (2.5% / 1.5%) did so during their habilitation.

women's own behaviour but only 2 men agree. Interestingly, only 60% of the female professors disagree. Additionally, 77% of the male respondents think that women do not lack the training and formal qualifications that are required to perform those jobs but only 2 men think that women do not fulfil those requirements.⁸³ More than a quarter (25.7%) of the man professors assume that the gender-specific socialisation of women leads to their under-representation at the higher levels of the hierarchy but more than 37% think that this is not the reason either. Regarding the dominance of men as well as organisational aspects, men think to a higher degree that these might be explanatory reasons. 27% of the man professors think that women get isolated in a male environment and more than 38% believe that society is organised in such a way that women are kept away from leading positions. Also 38.6% of the male respondents judge that it is a problem for women that they are not integrated in important informal networks. For the female respondents, this is the most significant reason for the under-representation of women at the highest levels of society.⁸⁴ As a result of these statements, we can see that the man professors in this investigation do not blame the women for their low participation among top positions. Anyhow, they do not have an obvious explanation for the gendered segregation at hand either. A rather high percentage assumes that external factors explain the exclusion of women from higher ranks but there are also many men who hold the opposite view so that no distinct answer dominates.

Regarding the evaluation of statements concerning the situation of women in science the female and male professors of this study hold very different views. 82.8% of the men suppose that in their discipline women are generally acknowledged as professors whereas just a little less than half of the women (48.9%) think that this is the case. Many of the man professors (65.7%) also find that women are generally accepted in leading research positions. Here, even fewer women agree (36.9%). Regarding the acceptance of women in top university positions the difference between the sexes becomes even bigger. 62.9% of the man but only 26.2% of the woman professors think that this is correct. When it comes to the question whether women have to perform better to obtain the same degree of recognition than their male colleagues, only 32.3% of the man professors agree but half of them disagree (35.7% disagree even strongly). In contrast to this, most woman professors (70.2%) think that female

⁸³ Concerning the question of qualification, there are hardly any differences between the evaluations of the female and male respondents.

⁸⁴ For 75% of the female respondents the fact that women are not integrated in important informal networks is a reason for their exclusion from top positions. 42.9% of the woman professors even strongly agree on this.

academics have to achieve more than men if they want to be successful.⁸⁵ Since both groups evaluate the situation of women very differently the question arises if the female professors could be over-critical or if the men are ignoring the problematic situation of women.

The participants in the survey were also asked to evaluate three general statements concerning the employment of women. Only 5.7% of the man professors agree that when jobs are scarce men should have more right to a job than women. Most men (87.1%) and also most women (92.9%) disagree. Regarding the proclamation that family life suffers when the woman has a full-time job only 34.3% of the male respondents disagree and the same number of men agrees. Here, a large difference between the sexes becomes apparent. More than half of the woman professors think that there are no negative consequences for the family whereas 14.2% think that this is the case. A very large proportion of the men (84.3%) supports the statement that having a paid job is the best way for a woman to be independent. In this regards, women are slightly more critical. 77.4% of the female respondents think that having an own income leads to independence. Hence, men generally seem to have a liberal attitude towards the employment of women but when it comes to the possible consequences they seem to think that it has a negative influence on the family life.

Concerning equal opportunity measures at universities 91.3% of the man and 93.8% of the woman professors in this study think that those programs should be continued whereas 3 women and 3 men think they should be brought to an end. Thus, only a minority of all respondents oppose measures to promote women. Nearly half of the men (47.8%) and 60% of the women want that these programs are changed but there are no information on the reasons of this estimation as well as on how they should possibly be changed.⁸⁶

To analyse whether the attitudes regarding the situation of women are contradicted or supported by the behaviour of men it is necessary to take their answers regarding questions on the distribution of household duties and childcare responsibilities into account. As shown above, the male respondents take on much less domestic work than the women. The men also hardly ever interrupt their career due to child rearing. Only one professor of the 70 male respondents did so for a length of 12 months⁸⁷ whereas 12 woman professors

⁸⁵ Please see also Appendix V, Tables 38.1 – 38.4.

⁸⁶ 71.3% of the female respondents and 81.2% of the man professors state that they know of women who have been promoted due to equal opportunity programs.

⁸⁷ Being younger than 50 years of age the respective man belongs to the younger generation of academics. He has two children who are born in the 1980s.

took a break from work to raise their children. Accordingly, only one man professor but 12 women say that they primarily cared for the children when they were still under school age. Additionally, two thirds of the fathers in this study mention their wife/partner as having the main childcare responsibility.⁸⁸ As a result, it becomes clear that many men still have someone else to care for the reproductive chores. They can also still depend on their wives and partners to take over most of the child-rearing duties whereas the women in this study have to do it themselves. Hence, the little participation of the man professors in those everyday chores contradicts their positive stance towards the position women in society in general as well as equal opportunity policies. Anyhow, it is not possible to establish a closer connection between these two aspects.

6. Conclusion

6.1 Evaluation of the main findings

Besides a representation of the main characteristics of professors at Austrian universities and the gender-specific differences it was the aim of this study to examine basic assumptions regarding the under-representation of women in higher positions. As one result it was found out that the woman professors do not publish more than their male colleagues. Yet, since the information only refer to the last two years before the survey was conducted it is not possible to draw any conclusions about the importance of publications for the course of the academic career. The finding that woman professors that are living together with a partner and have children are the most productive female academics can be confirmed but yet also has to be limited as only little differences could be shown by the present results. Additionally, there is no information on the distribution of the various tasks of the academics' work at university. From the information on the experiences of overload it becomes clear that research and teaching is not a burden for the woman professors whereas administrative duties and the involvement in committees often leads to the feeling of overwork. Regarding the support of students no data is available and in relation to the assistance of junior academics it seems as if the man professors in this investigation make a greater effort than the women.

Altogether the woman professors in this study are more mobile than their male colleagues. Only at the position of professor, the men show somewhat more mobility. Yet the single women in this study are the most mobile academics. This finding is supported by the results of the study of Hebenstreit et al. (2000).

⁸⁸ Please see also Chapter 5.3 and Appendix V, Table 31.

Children however seem to be more often an obstacle for the female than for the male academics. Fewer mothers spent some time abroad whereas this is not the case for fathers. Anyhow, there is also the tendency that the younger women spent some time abroad despite having children. Apart from international mobility women are also more mobile inside Austria as they move more often from one university to another to find a position than their male colleagues who are more likely to stay at the same institution. As a result, it seems that female academics have to be mobile to successfully pursue a career whereas their male colleagues appear to be less dependent on this strategy.

Also regarding support with an academic career there are gender-specific differences. On the one hand the women receive less personal support from colleagues and professors and fewer financial means for their research projects. On the other hand the female academics of this study get more often assistance with the financing of their academic qualifications. They do not seem to have experienced a big disadvantage when applying for professorship. Since these are the results of a survey among professors and thus persons that successfully pursued an academic career we can assume that assistance is a helpful but not necessarily a sufficient prerequisite. Additionally, the woman professors seem to have developed the indispensable quality to assert themselves in the male-dominated university system.

From the diverse answers regarding the issue of reconciliation it becomes apparent that the woman professors are generally more responsible for reproductive chores than man professors. Interestingly, single women and women without children think that it is problematic to reconcile work and family life whereas women who are engaged in a relationship and mothers are more likely to think that it is feasible. But when it comes to the actual problems the situation is reversed. Hence, it is possible that female academics decide not to get engaged in a partnership and have children because they are afraid of the efforts resulting from reconciling professional and family life. Even though they have not experienced this themselves they assume that this could be problematic and consequently decide for an academic career and against family. For the man professors the situation is different. They generally experience fewer conflicts than their female colleagues and do not seem to face more problems when they are married and have children. Anyhow, from the available information it is not possible to confirm that the family (or rather the wife or partner) can have a supporting or relieving function for man professors. Yet, the assumption that the issue of reconciliation is more relevant for women than it is for men and thus, that it is one of the important reasons for the under-representation of women among professors is verified.

Regarding the question whether the social background matters for an academic career it was found out that particularly the mothers but also the fathers of the woman professors are somewhat better qualified than the parents of the male professors. Also the mothers of the women were working to a slightly higher degree than the ones of the male academics. Yet the fathers of the female and the male professors held fairly similar positions. Even though the divergences are not extremely marked it is probable that to some degree the woman professors' mothers took over the function of a role model. Hence, the family background may influence career aspirations. Most professors come from middle class families but as no significant differences in relation to gender were detected it is impossible to conclude from these results that class matters more for women than it does for men. Furthermore, there is only little information on the role of the parents regarding the career, as there are no precise enquiries on this matter in the questionnaire. The support of family members seems to be a little more important for the woman professors than for the men but there is no information on how and to what degree those persons supported the academics.

Generally, the partners of the woman professors are not only somewhat better qualified in terms of education but are also found in higher professional positions than the partners of the man professors. Moreover, the academics' partners seem to have a rather high level of influence on the career. In this sense, only male professors and colleagues play a more or equally significant role. Consequently, the attitudes of the partners towards the professors' occupation matter as well. In general, they are fairly positive but the partners of the woman professors seem to have an even more affirmative stance. This may lead to the conclusion that female academics receive more support from their partners or that they could even be more dependent on this support to be successful than male academics. But similarly to the parents' influence, it is neither possible to make out in what way the partners are supportive nor to state that women actually are more dependent on this affirmation.

Regarding the importance of the attitudes of man professors towards women in science and society contradictions between the statements concerning equal opportunity policies and the degree of household engagement were detected. Generally, the man professors in this investigation support these measures and also encourage female employment. From these attitudes there should be no problems to improve the situation of women. Anyhow, when we take those aspects into account that could possibly have a direct effect on the men's situation (here the family life) this view becomes somewhat changed. Also the men do not have a clear explanation for the exclusion of women from the top positions in society. They do not directly blame the women for this but rather

attribute it to the female socialisation than to structural barriers. Moreover, men view the situation of female academics in a better light than the women themselves. Since the man professors see a higher degree of acceptance of women in science than the woman professors this could possibly lead to the ignorance of problems that women actually have to face. Comparing the opinions with the actual behaviour of the men the picture becomes further altered. On the one hand the man professors generally support female employment as well as equal opportunity measures but on the other hand many of them do not carry out the reproductive tasks and thus, do not equally share these duties with their partners. Hence, the positive attitudes could possibly be counteracted by traditionally determined behaviour, which in consequence could be an obstacle for achieving equality.

6.2 Recommendations

To further investigate the reasons for the under-representation of women among professors at Austrian universities it would be fruitful to undertake complementary research among those women and men who dropped out from the academic career path. The specific reasons for the conclusion of the academic career should be determined and compared as this could lead to some more profound insight into the different experiences of academics regarding the particular obstacles and problems of professional advancement in academia. It is also advisable to additionally conduct a comprehensive study among academics on the lower positions who are still striving for career progression as it is possible to expect that junior academics are facing a very different situation than their senior colleagues who have already succeeded with their career aspirations. Moreover, it would be interesting to further explore the attitudes and the behaviour of male academics as it was shown that these aspects can be quite contradictory. Even though it is possible to assume that men do not deliberately counteract efforts to reach equality at the workplace they may prevent them by their passive manners. Hence, a thorough analysis of men's conduct at the various levels of the academic hierarchy should lead to some deeper knowledge on the question why women are still markedly under-represented in top positions at Austrian universities.

Regarding the questionnaire as a tool for social research it has proved to be an appropriate means to collect a great amount of data. Its shortcoming though is the lack of freedom of the respondents to elaborate on certain answers or to give additional information. Yet, the standardisation of the questionnaire was necessary because of its application in seven different countries. Moreover, due

to the necessity to undertake cross-comparisons of numerous variables and small numbers of cases some results are rather vague. They lead to further questions that cannot be answered by the information from the survey but require additional questions for a more detailed insight on some issues. E.g. regarding the question whether professors with children are less mobile than their childless colleagues it would have been good to ask if the respective persons already had their children when they moved. The analysis of many variables may have distorted the picture. Also more precise questions on certain issues such as attitudes towards equal opportunity policies could have been helpful with finding explanations for the under-representation of women among professors. Another reason for the difficulties with the analysis is related to subcontracting a social research institute for the data collection. As basically no information on the procedures during the field phase were provided it is not possible to understand some of the results and particularly the individual reasons for missing answers. In addition to all these remarks on the method I suggest that *qualitative* research among woman and man professors could be undertaken to gain some deeper insight on specific questions.

“As the remaining barriers to power are subtle” (Kanter 1993: 309) it is necessary to create a higher consciousness for the imbalance in the system of higher education and the need for further action to improve the situation. It is inevitable that both, women and men notice the gender-specific disparities as well as the different consequences for female and male academics and that both participate in a process of change. Since these developments do not happen automatically it is the role of the national governments as well as the European Union to continue committing themselves to equal opportunity policies and to provide the required legal regulations and financial aids. The already implemented measures have to be monitored and assessed constantly in order to improve those means if necessary. Furthermore, new initiatives seem to be key instruments for creating the conditions to enhance equality in academia. In Austria, such programs can be found at the universities in Graz, Linz and Salzburg.⁸⁹ As there are no evaluations yet, it is difficult to estimate the effects of those measures. It seems to be problematic though, that they are funded by external sources. Therefore, they depend on the prolongation after the initial phase and may not overcome their status as projects and thus their temporary character. Due to the recent developments in the system of higher education it is questionable if they will ever be fully integrated into the individual universities.

⁸⁹ For information on the program at the universities in Graz please refer to <http://www.uni-graz.at/kffwww/chancen.html> , and for the program at the universities of Linz and Salzburg to <http://www.gendup.sbg.ac.at/page/veranstaltungen/karrierelinks.htm?id=23> .

Endeavours to change the consciousness of the university personnel and to influence the orientation of younger generations regarding an academic occupation however require long-term measures.

APPENDIX**I Abbreviations**

BMBWK:	Federal Ministry of Education, Science and Culture, (Bundesministerium für Bildung, Wissenschaft und Kultur)
CAPI:	Computer-assisted personal interviewing
CATI:	Computer-assisted telephone interviewing
GG:	Law regulating the income of civil servants in Austria, (Gehaltsgesetz über die Bezüge der Bundesbeamten)
ISCED:	International Standard Classification of Education
SPSS:	Statistical Package for the Social Sciences
SUZ:	Sozialwissenschaftliches Umfragezentrum GmbH at the University of Duisburg, Germany
UOG:	University Organisation Act, (Bundesgesetz über die Organisation der Universitäten)
VBG:	Law regulating contract employment of university teachers in section IIa, (Vertragsbedienstetengesetz),

II List of Austrian Universities

Leoben (0):	Leoben University of Mining and Metallurgy
TU Graz (1):	Technical University Graz
Agriculture (2):	University of Agricultural Sciences in Vienna
Graz (3):	University of Graz
Innsbruck (4):	University of Innsbruck
Klagenfurt (5):	University of Klagenfurt
Linz (6):	University of Linz
Salzburg (7):	University of Salzburg
Vet. Medicine (8):	University of Veterinary Medicine
Vienna (9):	University of Vienna
Economics (10):	Vienna University of Economics and Business Administration
Technology (11):	Vienna University of Technology

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V Tables

Table 1: Response summary

	total		female		male	
	247	100%	130	100%	117	100%
Target population						
No contact:						
No contact after up to 40 call-backs	11	4.5%	4	3.1%	7	6.0%
Not available during field phase	19	7.7%	8	6.2%	11	9.4%
Total	30	12.1%	12	9.2%	18	15.4%
Contactable population	217	100%	118	100%	99	100%
Refusals:						
No interest	34	15.7%	16	13.6%	18	18.2%
Incomplete Interview	2	0.9%	0	0%	2	2%
Invited for online survey but no participation	27	12.4%	18	15.3%	9	9.1%
Refusal rate	63	29%	34	28.8%	29	29.3%
Responses:						
Telephone	141	65%	79	66.9%	62	62.6%
Online	10	4.6%	4	3.4%	6	6.1%
Mail	3	1.4%	1	0.8%	2	2%
Response rate	154	71%	84	71.2%	70	70.7%
Completion rate		62.3%		64.6%		59.8%

Table 2.1: Age structure of respondents

			Sex of the respondent		total
			male	female	
Age structure	40 and younger	Frequency	7	7	14
		%	10,0%	8,3%	9,1%
	between 41 - 50	Frequency	24	37	61
		%	34,3%	44,0%	39,6%
	between 51 - 60	Frequency	18	19	37
		%	25,7%	22,6%	24,0%
	between 61 - 65	Frequency	18	18	36
	%	25,7%	21,4%	23,4%	
66 and older	Frequency	2	1	3	
	%	2,9%	1,2%	1,9%	
no answer	Frequency	1	2	3	
	%	1,4%	2,4%	1,9%	
total	Frequency	70	84	154	
	%	100,0%	100,0%	100,0%	

Table 2.2: Respondents according to 2 groups of age

			Sex of the respondent		total
			male	female	
2 groups of age	50 and younger	Frequency %	31 44,3%	44 52,4%	75 48,7%
	51 and older	Frequency %	38 54,3%	38 45,2%	76 49,4%
	no answer	Frequency %	1 1,4%	2 2,4%	3 1,9%
total		Frequency %	70 100,0%	84 100,0%	154 100,0%

Tabel 3: Marital status of the respondents

			Sex of the respondent		total
			male	female	
Marital status	single / never married	Frequency %	4 5,7%	19 22,6%	23 14,9%
	married / living together	Frequency %	65 92,9%	47 56,0%	112 72,7%
	seperated / divorced	Frequency %		16 19,0%	16 10,4%
	widow / widower	Frequency %		1 1,2%	1 ,6%
	no answer	Frequency %	1 1,4%	1 1,2%	2 1,3%
total		Frequency %	70 100,0%	84 100,0%	154 100,0%

Table 4: Professors with or without children

			Sex of the respondent		total
			male	female	
Do you have children?	yes	Frequency %	54 77,1%	45 53,6%	99 64,3%
	no	Frequency %	15 21,4%	38 45,2%	53 34,4%
	no answer	Frequency %	1 1,4%	1 1,2%	2 1,3%
total		Frequency %	70 100,0%	84 100,0%	154 100,0%

Table 5: Number of children

			Sex of the respondent		total
			male	female	
How many children do you have?	1	Frequency	12	16	28
		%	22,2%	35,6%	28,3%
	2	Frequency	30	21	51
		%	55,6%	46,7%	51,5%
	3	Frequency	7	4	11
		%	13,0%	8,9%	11,1%
	4	Frequency	4	2	6
		%	7,4%	4,4%	6,1%
	5	Frequency		2	2
		%		4,4%	2,0%
	6	Frequency	1		1
		%	1,9%		1,0%
total		Frequency	54	45	99
		%	100,0%	100,0%	100,0%

Table 6: Distribution of university professors among Austrian universities

	Man professors		Woman professors		All professors	
	total	%	total	%	total	%
Leoben University of Mining and Metallurgy (0)	38	2,6%	0	0,0%	38	2,4%
Technical University Graz (1)	84	5,7%	2	1,9%	86	5,5%
University of Agricultural Sciences in Vienna (2)	46	3,1%	5	4,7%	51	3,2%
University of Graz (3)	193	13,2%	11	10,4%	204	13,0%
University of Innsbruck (4)	199	13,6%	21	19,8%	220	14,0%
University of Klagenfurt (5)	49	3,3%	3	2,8%	52	3,3%
University of Linz (6)	104	7,1%	2	1,9%	106	6,7%
University of Salzburg (7)	108	7,4%	11	10,4%	119	7,6%
University of Veterinary Medicine in Vienna (8)	25	1,7%	2	1,9%	27	1,7%
University of Vienna (9)	396	27,0%	41	38,7%	437	27,8%
Vienna University of Economics and Business Administration (10)	64	4,4%	3	2,8%	67	4,3%
Vienna University of Technology (11)	161	11,0%	5	4,7%	166	10,6%
Total	1467	100,1%	106	100,0%	1573	100,1%

Source: Own elaborations based on BMBWK (2002b: 99).

Table 7: Distribution of respondents among Austrian universities

			Sex of the respondent		total
			male	female	
By which university are you currently employed?	Technical University Graz (1)	Frequency %		1 1,2%	1 ,6%
	University of Agricultural Sciences in Vienna (2)	Frequency %	5 7,1%	4 4,8%	9 5,8%
	University of Graz (3)	Frequency %	10 14,3%	8 9,5%	18 11,7%
	University of Innsbruck (4)	Frequency %	10 14,3%	17 20,2%	27 17,5%
	University of Klagenfurt (5)	Frequency %		1 1,2%	1 ,6%
	University of Linz (6)	Frequency %	4 5,7%	3 3,6%	7 4,5%
	University of Salzburg (7)	Frequency %	17 24,3%	13 15,5%	30 19,5%
	University of Veterinary Medicine in Vienna (8)	Frequency %	1 1,4%		1 ,6%
	University of Vienna (9)	Frequency %	19 27,1%	31 36,9%	50 32,5%
	Vienna University of Economics & Business Administration (10)	Frequency %	1 1,4%	1 1,2%	2 1,3%
	Vienna University of Technology (11)	Frequency %	3 4,3%	5 6,0%	8 5,2%
total	Frequency %	70 100,0%	84 100,0%	154 100,0%	

Table 8: Distribution of respondents according to field of science

			Sex of the respondent		total
			male	female	
Main discipline	Agriculture (6)	Frequency	2	1	3
		%	2,9%	1,2%	1,9%
	Education (1)	Frequency	2	1	3
		%	2,9%	1,2%	1,9%
	Engineering, Manufacturing and Construction (5)	Frequency	1	6	7
		%	1,4%	7,1%	4,5%
	Health and Welfare (7)	Frequency		5	5
		%		6,0%	3,2%
	Humanities and Arts (2)	Frequency	29	33	62
		%	41,4%	39,3%	40,3%
	Science (4)	Frequency	18	16	34
		%	25,7%	19,0%	22,1%
	Social Sciences, Buisness and Law (3)	Frequency	18	22	40
		%	25,7%	26,2%	26,0%
total		Frequency	70	84	154
		%	100,0%	100,0%	100,0%

Table 9: Distribution of respondents according to specific scientific field

			Sex of the respondent		total
			male	female	
Main scientific field	Agriculture, forestry and fishery (62)	Frequency %	1 1,4%	1 1,2%	2 1,3%
	Architecture and building (58)	Frequency %		4 4,8%	4 2,6%
	Business and administration (34)	Frequency %	1 1,4%		1 ,6%
	Computing (48)	Frequency %	4 5,7%	3 3,6%	7 4,5%
	Education (14)	Frequency %	2 2,9%	1 1,2%	3 1,9%
	Engineering and engineering trades (52)	Frequency %	1 1,4%	1 1,2%	2 1,3%
	Health (72)	Frequency %		5 6,0%	5 3,2%
	Humanities (22)	Frequency %	29 41,4%	33 39,3%	62 40,3%
	Law (38)	Frequency %	7 10,0%	8 9,5%	15 9,7%
	Life sciences (42)	Frequency %	5 7,1%	8 9,5%	13 8,4%
	Manufacturing and processing (54)	Frequency %		1 1,2%	1 ,6%
	Mathematics and statistics (46)	Frequency %	3 4,3%	1 1,2%	4 2,6%
	Physical sciences (44)	Frequency %	6 8,6%	4 4,8%	10 6,5%
	Social and behavioural science (31)	Frequency %	10 14,3%	14 16,7%	24 15,6%
	Veterinary (64)	Frequency %	1 1,4%		1 ,6%
	total	Frequency %	70 100,0%	84 100,0%	154 100,0%

Tabel 10: Total net income in 2001 (including all extra payments)

			Sex of the respondent		total
			male	female	
What was your total net income at your university in 2001 (including all extra payments)?	up to 20000 Euro	Frequency %	1 1,7%	4 7,5%	5 4,5%
	between 20001 - 30000 Euro	Frequency %	5 8,6%	8 15,1%	13 11,7%
	between 30001 - 40000 Euro	Frequency %	10 17,2%	20 37,7%	30 27,0%
	between 40001 - 50000 Euro	Frequency %	21 36,2%	11 20,8%	32 28,8%
	between 50001 - 60000 Euro	Frequency %	10 17,2%	3 5,7%	13 11,7%
	between 60001 - 70000 Euro	Frequency %	6 10,3%	5 9,4%	11 9,9%
	more than 70000 Euro	Frequency %	5 8,6%	2 3,8%	7 6,3%
total	Frequency %	58 100,0%	53 100,0%	111 100,0%	

Table 11: Proportion of the basic salary of the total income

			Sex of the respondent		total
			male	female	
Basic academic income	no answer	Frequency %	4 5,7%	7 8,3%	11 7,1%
	less than 20%	Frequency %		2 2,4%	2 1,3%
	between 21 - 40%	Frequency %	1 1,4%	1 1,2%	2 1,3%
	between 40 - 60%	Frequency %	5 7,1%	6 7,1%	11 7,1%
	between 61 - 80%	Frequency %	26 37,1%	23 27,4%	49 31,8%
	between 81 - 100%	Frequency %	34 48,6%	45 53,6%	79 51,3%
total	Frequency %	70 100,0%	84 100,0%	154 100,0%	

Table 12: Evaluation of own income

			Sex of the respondent		total
			male	female	
How would you rate your own academic salary?	-1- very good	Frequency %	8 11,4%	2 2,4%	10 6,5%
	-2-	Frequency %	25 35,7%	19 22,6%	44 28,6%
	-3-	Frequency %	24 34,3%	43 51,2%	67 43,5%
	-4-	Frequency %	11 15,7%	12 14,3%	23 14,9%
	-5- very poor	Frequency %	1 1,4%	7 8,3%	8 5,2%
	no answer	Frequency %	1 1,4%	1 1,2%	2 1,3%
total	Frequency %	70 100,0%	84 100,0%	154 100,0%	

Table 13: Graduation from university with a master degree

			Sex of the respondent		total
			male	female	
Did you graduate from university with a master degree?	yes	Frequency %	49 70,0%	67 79,8%	116 75,3%
	no	Frequency %	20 28,6%	15 17,9%	35 22,7%
	no answer	Frequency %	1 1,4%	2 2,4%	3 1,9%
total	Frequency %	70 100,0%	84 100,0%	154 100,0%	

Table 14: Time of completion of the master program

			Sex of the respondent		total
			male	female	
When did you finish your master program?	before 1950	Frequency %	1 2,0%		1 ,9%
	between 1951 - 1960	Frequency %	1 2,0%	1 1,5%	2 1,7%
	between 1961 - 1970	Frequency %	12 24,5%	13 19,4%	25 21,6%
	between 1971 - 1980	Frequency %	20 40,8%	29 43,3%	49 42,2%
	between 1981 - 1990	Frequency %	15 30,6%	24 35,8%	39 33,6%
total	Frequency %	49 100,0%	67 100,0%	116 100,0%	

Table 15: University of graduation

			Sex of the respondent		total
			male	female	
At which university did you graduate?	at the current university	Frequency %	19 39,6%	17 25,4%	36 31,3%
	at another Austrian university	Frequency %	21 43,8%	25 37,3%	46 40,0%
	at another international university	Frequency %	8 16,7%	25 37,3%	33 28,7%
total	Frequency %	48 100,0%	67 100,0%	115 100,0%	

Table 16: Country where master degree was obtained

			Sex of the respondent		total
			male	female	
In which country did you obtain your master degree?	Austria (incl. no answer)	Frequency %	62 88,6%	59 70,2%	121 78,6%
	Finland	Frequency %		1 1,2%	1 ,6%
	Finland and Australia	Frequency %		1 1,2%	1 ,6%
	France	Frequency %		1 1,2%	1 ,6%
	Germany	Frequency %	7 10,0%	18 21,4%	25 16,2%
	Scotland	Frequency %		1 1,2%	1 ,6%
	Switzerland	Frequency %	1 1,4%	2 2,4%	3 1,9%
	USA	Frequency %		1 1,2%	1 ,6%
	total	Frequency %	70 100,0%	84 100,0%	154 100,0%

Table 17: Occupation after graduation

			Sex of the respondent		total
			male	female	
Occupation after graduation from university	immediate start with dissertation	Frequency %	32 65,3%	49 71,0%	81 68,6%
	work at university or research institute	Frequency %	5 10,2%	9 13,0%	14 11,9%
	other vocational career	Frequency %	7 14,3%	5 7,2%	12 10,2%
	no answer	Frequency %	5 10,2%	6 8,7%	11 9,3%
total	Frequency %	49 100,0%	69 100,0%	118 100,0%	

Table 18: Time of completion of first dissertation

			Sex of the respondent		total
			male	female	
When did you complete your first dissertation?	before 1960	Frequency %	1 1,5%	1 1,2%	2 1,4%
	between 1961 - 1970	Frequency %	17 25,4%	13 16,0%	30 20,3%
	between 1971 - 1980	Frequency %	27 40,3%	28 34,6%	55 37,2%
	between 1981 - 1990	Frequency %	15 22,4%	35 43,2%	50 33,8%
	between 1991 - 2000	Frequency %	7 10,4%	4 4,9%	11 7,4%
total	Frequency %	67 100,0%	81 100,0%	148 100,0%	

Table 19: University of dissertation

			Sex of the respondent		total
			male	female	
At which university did you obtain your PhD.?	at the current university	Frequency %	39 55,7%	33 39,3%	72 46,8%
	at another Austrian university	Frequency %	18 25,7%	19 22,6%	37 24,0%
	at another international university	Frequency %	10 14,3%	30 35,7%	40 26,0%
	no answer	Frequency %	3 4,3%	2 2,4%	5 3,2%
total	Frequency %	70 100,0%	84 100,0%	154 100,0%	

Table 20: Country where doctoral degree was achieved

			Sex of the respondent		total
			male	female	
In which country did you obtain your PhD.?	Austria (incl. no answer)	Frequency %	60 85,7%	54 64,3%	114 74,0%
	Australia	Frequency %		1 1,2%	1 ,6%
	Finland	Frequency %		1 1,2%	1 ,6%
	Germany	Frequency %	10 14,3%	22 26,2%	32 20,8%
	New Zealand	Frequency %		1 1,2%	1 ,6%
	Scotland	Frequency %		1 1,2%	1 ,6%
	Switzerland	Frequency %		3 3,6%	3 1,9%
	USA	Frequency %		1 1,2%	1 ,6%
	total	Frequency %	70 100,0%	84 100,0%	154 100,0%

Table 21.1: Time of habilitation

			Sex of the respondent		total
			male	female	
When did you complete your habilitation?	before 1970	Frequency %	3 4,5%	1 1,3%	4 2,8%
	between 1971 - 1980	Frequency %	16 24,2%	9 11,5%	25 17,4%
	between 1981 - 1990	Frequency %	27 40,9%	31 39,7%	58 40,3%
	between 1991 - 2000	Frequency %	19 28,8%	35 44,9%	54 37,5%
	after 2000	Frequency %	1 1,5%	2 2,6%	3 2,1%
total	Frequency %	66 100,0%	78 100,0%	144 100,0%	

Table 21.2: Time of habilitation and age

Sex of the respondent				2 age groups		total
				50 and younger	51 and older	
male	When did you complete your habilitation?	before 1970	Frequency %		3 8,6%	3 4,5%
		between 1971 - 1980	Frequency %	1 3,2%	15 42,9%	16 24,2%
		between 1981 - 1990	Frequency %	10 32,3%	17 48,6%	27 40,9%
		between 1991 - 2000	Frequency %	19 61,3%		19 28,8%
		after 2000	Frequency %	1 3,2%		1 1,5%
	total	Frequency %	31 100,0%	35 100,0%	66 100,0%	
female	When did you complete your habilitation?	before 1970	Frequency %		1 2,8%	1 1,3%
		between 1971 - 1980	Frequency %		9 25,0%	9 11,5%
		between 1981 - 1990	Frequency %	9 21,4%	22 61,1%	31 39,7%
		between 1991 - 2000	Frequency %	31 73,8%	4 11,1%	35 44,9%
		after 2000	Frequency %	2 4,8%		2 2,6%
	total	Frequency %	42 100,0%	36 100,0%	78 100,0%	

Table 22: University of habilitation

			Sex of the respondent		total
			male	female	
Where did you complete your habilitation?	at the current university	Frequency %	44 62,9%	36 42,9%	80 51,9%
	at another Austrian university	Frequency %	12 17,1%	17 20,2%	29 18,8%
	at another international university	Frequency %	10 14,3%	25 29,8%	35 22,7%
	no answer	Frequency %	4 5,7%	6 7,1%	10 6,5%
total	Frequency %	70 100,0%	84 100,0%	154 100,0%	

Table 23: Country where habilitation was obtained

			Sex of the respondent		total
			male	female	
In which country did you complete your habilitation?	Austria (incl. no answer)	Frequency %	60 85,7%	59 70,2%	119 77,3%
	Finland	Frequency %		1 1,2%	1 ,6%
	Germany	Frequency %	10 14,3%	19 22,6%	29 18,8%
	Switzerland	Frequency %		5 6,0%	5 3,2%
total	Frequency %	70 100,0%	84 100,0%	154 100,0%	

Table 24: Time of obtaining professorship title

			Sex of the respondent		total
			male	female	
When did you obtain your titel as professor?	between 1961 - 1970	Frequency %	2 2,9%	1 1,2%	3 2,0%
	between 1971 - 1980	Frequency %	12 17,6%	4 4,8%	16 10,6%
	between 1981 - 1990	Frequency %	13 19,1%	22 26,5%	35 23,2%
	between 1991 - 2000	Frequency %	37 54,4%	52 62,7%	89 58,9%
	after 2000	Frequency %	4 5,9%	4 4,8%	8 5,3%
total	Frequency %	68 100,0%	83 100,0%	151 100,0%	

Table 25: Time of obtaining first position as professor

			Sex of the respondent		total
			male	female	
When did you obtain your first post as professor?	between 1961 - 1970	Frequency %		1 1,3%	1 ,7%
	between 1971 - 1980	Frequency %	14 20,9%	1 1,3%	15 10,3%
	between 1981 - 1990	Frequency %	12 17,9%	21 26,9%	33 22,8%
	between 1991 - 2000	Frequency %	36 53,7%	52 66,7%	88 60,7%
	after 2000	Frequency %	5 7,5%	3 3,8%	8 5,5%
total	Frequency %	67 100,0%	78 100,0%	145 100,0%	

Table 26: University of first position as professor

			Sex of the respondent		total
			male	female	
Where did you obtain your first post as professor?	at the current university	Frequency %	55 78,6%	59 70,2%	114 74,0%
	at another Austrian university	Frequency %	4 5,7%	4 4,8%	8 5,2%
	at another international university	Frequency %	10 14,3%	17 20,2%	27 17,5%
	no answer	Frequency %	1 1,4%	4 4,8%	5 3,2%
total	Frequency %	70 100,0%	84 100,0%	154 100,0%	

Table 27: Country of first position as professor

			Sex of the respondent		total
			male	female	
In which country did you obtain your first post as professor?	Austria (incl. no answer)	Frequency %	60 85,7%	67 79,8%	127 82,5%
	Canada	Frequency %		1 1,2%	1 ,6%
	Germany	Frequency %	10 14,3%	16 19,0%	26 16,9%
total	Frequency %	70 100,0%	84 100,0%	154 100,0%	

Table 28: Length of employment at a university or research institute

			Sex of the respondent		total
			male	female	
How many years have you been employed by a higher education or research institute?	up to 5 years	Frequency %	1 1,5%	4 4,9%	5 3,3%
	between 6 - 10 years	Frequency %	1 1,5%	5 6,1%	6 4,0%
	between 11 - 15 years	Frequency %	11 16,2%	12 14,6%	23 15,3%
	between 16 - 20 years	Frequency %	6 8,8%	13 15,9%	19 12,7%
	between 21 - 25 years	Frequency %	9 13,2%	14 17,1%	23 15,3%
	between 26 - 30 years	Frequency %	12 17,6%	14 17,1%	26 17,3%
	between 31 - 35 years	Frequency %	20 29,4%	15 18,3%	35 23,3%
	between 36 - 40 years	Frequency %	8 11,8%	2 2,4%	10 6,7%
	more than 40 years	Frequency %		3 3,7%	3 2,0%
	total	Frequency %	68 100,0%	82 100,0%	150 100,0%

Table 29: Length of employment at current university

			Sex of the respondent		total
			male	female	
How many years have you been employed at your current university?	up to 5 years	Frequency	8	25	33
		%	11,9%	30,1%	22,0%
	between 6 - 10 years	Frequency	7	18	25
		%	10,4%	21,7%	16,7%
	between 11 - 15 years	Frequency	8	13	21
		%	11,9%	15,7%	14,0%
	between 16 - 20 years	Frequency	11	6	17
		%	16,4%	7,2%	11,3%
	between 21 - 25 years	Frequency	6	7	13
		%	9,0%	8,4%	8,7%
between 26 - 30 years	Frequency	9	8	17	
	%	13,4%	9,6%	11,3%	
between 31 - 35 years	Frequency	15	3	18	
	%	22,4%	3,6%	12,0%	
between 36 - 40 years	Frequency	3	1	4	
	%	4,5%	1,2%	2,7%	
more than 40 years	Frequency		2	2	
	%		2,4%	1,3%	
total	Frequency	67	83	150	
	%	100,0%	100,0%	100,0%	

Table 30: Interruptions of the career

			Sex of the respondent		total
			male	female	
Looking back, since your first academic appointment: Did you have interruptions longer than six month?	yes	Frequency	8	15	23
		%	11,4%	17,9%	14,9%
	no	Frequency	61	68	129
	%	87,1%	81,0%	83,8%	
no answer	Frequency	1	1	2	
	%	1,4%	1,2%	1,3%	
total	Frequency	70	84	154	
	%	100,0%	100,0%	100,0%	

Table 31: Distribution of childcare responsibilities

			Sex of the respondent		total
			male	female	
When your children were under school age: How were they primarily cared for during working hours?	primarily by myself	Frequency %	1 1,9%	12 26,7%	13 13,1%
	primarily by my partner	Frequency %	36 66,7%	5 11,1%	41 41,4%
	equal share between me and my partner	Frequency %	9 16,7%	10 22,2%	19 19,2%
	primarily by other family members	Frequency %	2 3,7%	5 11,1%	7 7,1%
	primarily in privately financed care (also babysitter)	Frequency %		7 15,6%	7 7,1%
	primarily in publicly financed care	Frequency %		5 11,1%	5 5,1%
	no answer	Frequency %	6 11,1%	1 2,2%	7 7,1%
total	Frequency %	54 100,0%	45 100,0%	99 100,0%	

Table 32.1: Distribution of domestic work (all respondents)

			Sex of the respondent		total
			male	female	
To what extent do you yourself take care of domestic work in your household?	not at all	Frequency %	4 5,7%	3 3,6%	7 4,5%
	less than half	Frequency %	44 62,9%	15 17,9%	59 38,3%
	half	Frequency %	16 22,9%	22 26,2%	38 24,7%
	more than half	Frequency %	1 1,4%	25 29,8%	26 16,9%
	completely	Frequency %	4 5,7%	17 20,2%	21 13,6%
	no answer	Frequency %	1 1,4%	2 2,4%	3 1,9%
total	Frequency %	70 100,0%	84 100,0%	154 100,0%	

Table 32.2: Distribution of domestic work (respondents in a relationship)

			Sex of the respondent		total
			male	female	
To what extent do you yourself take care of domestic work in your household?	not at all	Frequency %	4 6,2%	2 4,3%	6 5,4%
	less than half	Frequency %	43 66,2%	10 21,3%	53 47,3%
	half	Frequency %	15 23,1%	15 31,9%	30 26,8%
	more than half	Frequency %	1 1,5%	17 36,2%	18 16,1%
	completely	Frequency %	2 3,1%	2 4,3%	4 3,6%
	no answer	Frequency %		1 2,1%	1 ,9%
	total	Frequency %	65 100,0%	47 100,0%	112 100,0%

Table 32.3: Distribution of domestic work (respondents with children)

			Sex of the respondent		total
			male	female	
To what extent do you yourself take care of domestic work in your household?	not at all	Frequency %	4 7,4%	2 4,4%	6 6,1%
	less than half	Frequency %	40 74,1%	10 22,2%	50 50,5%
	half	Frequency %	9 16,7%	16 35,6%	25 25,3%
	more than half	Frequency %	1 1,9%	12 26,7%	13 13,1%
	completely	Frequency %		4 8,9%	4 4,0%
	no answer	Frequency %		1 2,2%	1 1,0%
	total	Frequency %	54 100,0%	45 100,0%	99 100,0%

Table 33: Reconciliation of profession and family

			Sex of the respondent		total
			male	female	
Would you say that you can combine your professional with your family life?	-1- not at all	Frequency	2	14	16
		%	2,9%	16,7%	10,4%
	-2-	Frequency	7	11	18
		%	10,0%	13,1%	11,7%
	-3-	Frequency	21	19	40
		%	30,0%	22,6%	26,0%
	-4-	Frequency	21	20	41
		%	30,0%	23,8%	26,6%
	-5- very much	Frequency	17	15	32
		%	24,3%	17,9%	20,8%
	do not know	Frequency	1	4	5
		%	1,4%	4,8%	3,2%
	no answer	Frequency	1	1	2
		%	1,4%	1,2%	1,3%
total		Frequency	70	84	154
		%	100,0%	100,0%	100,0%

Table 34: Conflicts between work and family life

			Sex of the respondent		total
			male	female	
How often do you experience a conflict between the demands of your work at university and the demands of your family life?	-1- never	Frequency	7	8	15
		%	10,0%	9,5%	9,7%
	-2-	Frequency	25	20	45
		%	35,7%	23,8%	29,2%
	-3-	Frequency	21	18	39
		%	30,0%	21,4%	25,3%
	-4-	Frequency	9	17	26
		%	12,9%	20,2%	16,9%
	-5- very often	Frequency	6	18	24
		%	8,6%	21,4%	15,6%
	do not know	Frequency		1	1
		%		1,2%	,6%
	no answer	Frequency	2	2	4
		%	2,9%	2,4%	2,6%
total		Frequency	70	84	154
		%	100,0%	100,0%	100,0%

Table 35: Influence of childcare on the profession

			Sex of the respondent		total
			male	female	
When your children were of school age how often did the issue of childcare after school hours impair your ability to perform your job?	-1- never	Frequency %	14 25,9%	9 20,0%	23 23,2%
	-2-	Frequency %	16 29,6%	4 8,9%	20 20,2%
	-3-	Frequency %	16 29,6%	10 22,2%	26 26,3%
	-4-	Frequency %	2 3,7%	8 17,8%	10 10,1%
	-5- very often	Frequency %		10 22,2%	10 10,1%
	do not know	Frequency %	1 1,9%		1 1,0%
	no answer	Frequency %	5 9,3%	4 8,9%	9 9,1%
total	Frequency %	54 100,0%	45 100,0%	99 100,0%	

Table 36: Experiences of symptoms of overwork

			Sex of the respondent		total
			male	female	
How often in the past year have you experienced symptoms of overwork such as exhaustion, anxiety, or feeling burnt out?	-1- never	Frequency %	13 18,6%	14 16,7%	27 17,5%
	-2-	Frequency %	23 32,9%	19 22,6%	42 27,3%
	-3-	Frequency %	22 31,4%	25 29,8%	47 30,5%
	-4-	Frequency %	9 12,9%	13 15,5%	22 14,3%
	-5- very often	Frequency %	1 1,4%	11 13,1%	12 7,8%
	no answer	Frequency %	2 2,9%	2 2,4%	4 2,6%
total	Frequency %	70 100,0%	84 100,0%	154 100,0%	

Table 37.1: Highest educational degree of mother

			Sex of the respondent		total
			male	female	
Highest educational degree of mother	Primary education	Frequency %	18 25,7%	11 13,1%	29 18,8%
	Lower secondary or vocational school	Frequency %	25 35,7%	33 39,3%	58 37,7%
	Upper secondary education	Frequency %	17 24,3%	16 19,0%	33 21,4%
	Unfinished university education	Frequency %	1 1,4%	1 1,2%	2 1,3%
	University / Tertiary education	Frequency %	1 1,4%	10 11,9%	11 7,1%
	PhD. / doctorate	Frequency %	3 4,3%	8 9,5%	11 7,1%
	Other	Frequency %	2 2,9%	4 4,8%	6 3,9%
	No answer	Frequency %	3 4,3%	1 1,2%	4 2,6%
total	Frequency %	70 100,0%	84 100,0%	154 100,0%	

Table 37.2: Highest educational degree of father

			Sex of the respondent		total
			male	female	
Highest educational degree of father	Primary education	Frequency %	12 17,1%	7 8,3%	19 12,3%
	Lower secondary or vocational school	Frequency %	18 25,7%	21 25,0%	39 25,3%
	Upper secondary education	Frequency %	9 12,9%	10 11,9%	19 12,3%
	Unfinished university education	Frequency %	1 1,4%	2 2,4%	3 1,9%
	University / Tertiary education	Frequency %	9 12,9%	23 27,4%	32 20,8%
	Supplementary studies	Frequency %		1 1,2%	1 ,6%
	PhD. / doctorate	Frequency %	15 21,4%	12 14,3%	27 17,5%
	Other	Frequency %	3 4,3%	6 7,1%	9 5,8%
	Do not know	Frequency %		1 1,2%	1 ,6%
	No answer	Frequency %	3 4,3%	1 1,2%	4 2,6%
	total	Frequency %	70 100,0%	84 100,0%	154 100,0%

Table 37.3: Highest educational degree of partner

			Sex of the respondent		total
			male	female	
Highest educational degree of partner	Lower secondary or vocational school	Frequency %	9 13,2%	2 2,6%	11 7,6%
	Upper secondary education	Frequency %	8 11,8%	5 6,6%	13 9,0%
	Unfinished university education	Frequency %	2 2,9%	1 1,3%	3 2,1%
	University / Tertiary education	Frequency %	23 33,8%	29 38,2%	52 36,1%
	Supplementary studies	Frequency %		1 1,3%	1 ,7%
	PhD. / doctorate	Frequency %	19 27,9%	24 31,6%	43 29,9%
	Other	Frequency %	5 7,4%	7 9,2%	12 8,3%
	Do not know	Frequency %		1 1,3%	1 ,7%
	No answer	Frequency %	2 2,9%	6 7,9%	8 5,6%
total	Frequency %	68 100,0%	76 100,0%	144 100,0%	

Table 38.1: Acceptance of women as professors

			Sex of the respondent		total
			male	female	
Women are generally accepted in positions of professors in my field.	-1- strongly disagree	Frequency %	1 1,4%	6 7,1%	7 4,5%
	-2-	Frequency %	2 2,9%	12 14,3%	14 9,1%
	-3-	Frequency %	7 10,0%	24 28,6%	31 20,1%
	-4-	Frequency %	15 21,4%	15 17,9%	30 19,5%
	-5- strongly agree	Frequency %	43 61,4%	26 31,0%	69 44,8%
	no answer	Frequency %	2 2,9%	1 1,2%	3 1,9%
total	Frequency %	70 100,0%	84 100,0%	154 100,0%	

Table 38.2: Acceptance of women in positions of leadership in research

			Sex of the respondent		total
			male	female	
Women are generally accepted in positions of leadership in research.	-1- strongly disagree	Frequency %	3 4,3%	13 15,5%	16 10,4%
	-2-	Frequency %	5 7,1%	15 17,9%	20 13,0%
	-3-	Frequency %	13 18,6%	24 28,6%	37 24,0%
	-4-	Frequency %	21 30,0%	16 19,0%	37 24,0%
	-5- strongly agree	Frequency %	25 35,7%	15 17,9%	40 26,0%
	no answer	Frequency %	3 4,3%	1 1,2%	4 2,6%
	total	Frequency %	70 100,0%	84 100,0%	154 100,0%

Table 38.3: Acceptance of women in top university positions

			Sex of the respondent		total
			male	female	
Women are generally accepted in top university positions.	-1- strongly disagree	Frequency %	4 5,7%	13 15,5%	17 11,0%
	-2-	Frequency %	6 8,6%	16 19,0%	22 14,3%
	-3-	Frequency %	14 20,0%	30 35,7%	44 28,6%
	-4-	Frequency %	24 34,3%	15 17,9%	39 25,3%
	-5- strongly agree	Frequency %	20 28,6%	7 8,3%	27 17,5%
	do not know	Frequency %		2 2,4%	2 1,3%
	no answer	Frequency %	2 2,9%	1 1,2%	3 1,9%
total	Frequency %	70 100,0%	84 100,0%	154 100,0%	

Table 38.4: Women's achievements to receive recognition

			Sex of the respondent		total
			male	female	
Women have to achieve more than men to receive the same degree of recognition in my field.	-1- strongly disagree	Frequency %	25 35,7%	12 14,3%	37 24,0%
	-2-	Frequency %	10 14,3%	6 7,1%	16 10,4%
	-3-	Frequency %	10 14,3%	5 6,0%	15 9,7%
	-4-	Frequency %	13 18,6%	22 26,2%	35 22,7%
	-5- strongly agree	Frequency %	10 14,3%	37 44,0%	47 30,5%
	do not know	Frequency %		1 1,2%	1 ,6%
	no answer	Frequency %	2 2,9%	1 1,2%	3 1,9%
total	Frequency %	70 100,0%	84 100,0%	154 100,0%	

VI Glossary⁹⁰

Completion rate:	Relation of responses to target population.
Contract assistant:	Academic who holds a fix term contract to assist in teaching and research (VertragsassistentIn).
Dean:	Monocratic head of a faculty (DekanIn).
Dean of studies:	Organ responsible for the organisation and evaluation of teaching and examining at a faculty (StudiendekanIn).
Dissertation:	Doctoral thesis (Dissertation).
Doctoral degree:	Academic degree awarded upon the completion of a doctoral program (Dokortitel).
Employment law for university teachers:	Law regulating the employment conditions of staff involved in teaching and research at Austrian universities (Universitätslehrer-Dienstrecht).
Faculty:	Subject-oriented segmentation of a university (Fakultät).
Habilitation:	The right to teach at university in a circumscribed field or discipline. To reach this qualification it is necessary to write a habilitation thesis after the doctorate, which is the prerequisite for an appointment as a professor (Habilitation).
Institute:	Organisation unit for teaching and research at a university (Institut).
Master degree:	Academic degree awarded upon the completion of a master program (Magistergrad).

⁹⁰ The glossary is partly based on the explications of the dictionary of the Bundesministerium für Wissenschaft und Verkehr (1999) as well as on Vogt (1993).

- Non-contact-rate:** Relation of inaccessible persons to target population.
- Refusal rate:** Relation of refusals to contactable population.
- Response rate:** Expression of the relation of fully completed questionnaires to contactable population.
- Target group:** A group about which a researcher wishes to draw conclusions; another term for a population about which one “aims” to make inferences.
- University assistant:** Academic responsible for assistance in teaching, research, and art performance (UniversitätsassistentIn).
- University collegium:** Highest self-governing body at universities which is not subdivided into faculties (Universitätskollegium).
- University Organisation Act:** (Universitäts-Organisationsgesetz), Legal framework of the organisation of the Austrian universities.
- University Professor:** Academic who is employed as professor at an Austrian university usually after obtaining the habilitation (UniversitätsprofessorIn).

VII Fields of science according to ISCED 1997

Education (1)

14 Teacher training and education science:

Teacher training for pre-school, kindergarten, elementary school, vocational, practical, non-vocational subject, adult education, teacher trainers and for handicapped children, education science

Humanities and Arts (2)

21 Arts:

Fine arts, performing arts, graphic and audio-visual arts, design

22 Humanities:

Religion and theology, foreign languages and cultures, native languages and literature, interpretation and translation, linguistics, comparative literature, history, archaeology, philosophy, ethics

Social sciences, business and law (3)

31 Social and behavioural science:

Economics, economic history, political science, sociology, demography, anthropology, ethnology, futurology, psychology, geography, peace and conflict studies, human rights

32 Journalism and information:

Journalism, library technician and science, technicians in museums and similar repositories, documentation techniques, archival sciences

34 Business and administration:

Retailing, marketing, sales, public relations, finance, banking, insurance, investment analysis, accounting, auditing, bookkeeping, management, public administration, institutional administration, personnel administration, secretarial and office work

38 Law:

Local magistrates, 'notaries', law (general, international, labour, maritime, etc.), jurisprudence, history of law

Science (4)

42 Life sciences:

Biology, botany, bacteriology, toxicology, microbiology, zoology, entomology, ornithology, genetics, biochemistry, biophysics, other allied sciences, excluding clinical and veterinary sciences

44 Physical sciences:

Astronomy and space sciences, physics, chemistry, geology, geophysics, mineralogy, physical anthropology, physical geography, meteorology, marine science, vulcanology, palaeoecology and other allied subjects

46 Mathematics and statistics:

Mathematics, operations research, numerical analysis, actuarial science, statistics and other allied fields

48 Computing:

Computer sciences: software development only

Engineering, manufacturing and construction (5)

52 Engineering and engineering trades:

Engineering drawing, mechanics, metal work, electricity, electronics, telecommunications, energy and chemical engineering, vehicle maintenance, surveying

54 Manufacturing and processing

Food and drink processing, textiles, clothes, footwear, leather, materials, mining and extraction

58 Architecture and building

Architecture and town planning, building, construction, civil engineering

Agriculture (6)

62 Agriculture, forestry and fishery:

Agriculture, crop and livestock production, agronomy, animal husbandry, horticulture and gardening, forestry and forest product techniques, natural parks, wildlife, fisheries, fishery science and technology

64 Veterinary:

Veterinary medicine, veterinary assisting

Health and welfare (7)

72 Health:

Medicine, medical services, nursing, dental services

76 Social services:

Social care and social work

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ABSTRACT

The European Research Training Network “Women in European Universities” seeks to explore the situation of woman academics and their career chances and barriers at universities in Europe. The starting point of the research is the gendered segregation of the professions in higher education. Despite all progress, women and men are still unevenly distributed among the different disciplines and hierarchical inequalities yet prevail in the university system. In Austria, as in many other European countries, the leaky pipeline makes women drop out from the academic career path to a much higher rate than their male colleagues.

This study is an outcome of the fourth working phase of the training network. In this phase, it was the overall aim to learn more about the particular circumstances influencing women’s career progression at universities by using qualitative methods. The present paper is looking at the situation of the junior faculty at Austrian universities and their experiences at the start of an academic career. Through the analysis of group discussions various aspects having an effect on the work situation and the careers of female and male academics were isolated. As a result, it was discovered that not one single factor but a range of aspects matter in regards to the academic profession. Additionally, it was possible to identify the paths of access into the university system as a work place as well as the further career steps of women and men. Similarities as well as differences among the individual academics and the two gender-groups respectively become clear in the turn of the investigation. The experiences of the junior faculty also show a high connectedness with the national policies on higher education in Austria.

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1. Introduction

As in most other European countries, there is no parity in the distribution of women and men in Austria's university system. Without taking into account the different disciplines, the two groups are relatively evenly distributed among students, but women are still markedly under-represented on the higher levels of the academic hierarchy. In addition to this vertical segregation, there is also horizontal segregation. Women are particularly under-represented in the fields of engineering and technology but account for a relatively high share of those in the social sciences and humanities.

To analyse the reasons for this disparity in higher education, the Research Training Network "*Women in European Universities*"⁹¹ has undertaken several steps in its assessment of the existing situation. In the first two phases of the project, a contextual analysis as well as a statistical profile of the Austrian higher education system were carried out to provide a first overview of the circumstances and recent developments.⁹² In the third phase, the experiences of male and female professors were evaluated by means of a comprehensive survey. Now, in the present step of the research, this paper looks at the experiences of female and male junior academics at the University of Innsbruck. This institution is the Austrian project partner and one of the larger universities in the country and as such offers a wide variety of courses of study within its seven faculties.

The purpose of this case study is to investigate the working conditions of the junior faculty in Austria as well as the career opportunities open to them and the obstacles they face. It is of interest to determine whether there are any problematic structural barriers at the institutional level or if it is rather the informal obstacles that matter when it comes to an academic career. With a gender perspective in mind, I will try to analyse any potential or existing differences in the experiences of men and women at the university. In an effort to identify current aspects that matter when pursuing a career at university, the focus here will be on the junior faculty.

Despite growing concern in women and science, the words "science" and "scientist" are not clearly defined. It is sometimes argued "that a distinction should not be made between the natural sciences and the social sciences and that any body of organised knowledge is scientific" (Bebbington 2001: 7). With

⁹¹ For further information on the network see <http://www.women-eu.de>.

⁹² See Poulsen (2001) and Poulsen (2002).

reference to this definition, I will therefore use the terms “academic”, “scientist” and “researcher” interchangeably in this paper to mean any person working in the field of research and teaching at university.

A career at an Austrian university follows a comparatively prescribed path. From being an academic employee in training (“wissenschaftlicher Mitarbeiter in Ausbildung”) it is possible to move up to being an assistant and eventually a professor. During this process certain conditions must be fulfilled; otherwise it is impossible to climb up the career ladder. Since both the standards and the organisation of science are still determined by male norms, these conditions have different consequences for women and men. Until today, the university is considered to be a “homo-social world”. Women therefore have to cope with double demands. They have to find a balance between scientific standards and their own female identity (Buchinger et al. 2002: 112; Schultz 1988: 5).

This paper is divided into four main parts. The first is a description of the representation of women and men in the higher education system in Austria as well as the legal framework regulating the different occupational positions of the junior faculty. This serves as a general introduction to the topic by supplying background information on the situation in Austria. In the next chapter, the methodological approach of this study is outlined. Since other methods were used in previous stages of this project, it was decided to use a qualitative method in the final working phase. Therefore, I conducted group discussions with female and male members of the junior faculty in separate sessions. In the chapter which follows, first results of the discussions are presented. They show how academics find their way into the university and how their careers progress. Finally, the last section of this paper is an extensive analysis of the various factors that have an impact on the junior faculty’s work situation and career conditions. To complete the picture, the results of the discussions are compared with the findings of studies recently conducted among Austrian academics.

2. The situation of the junior faculty in Austria

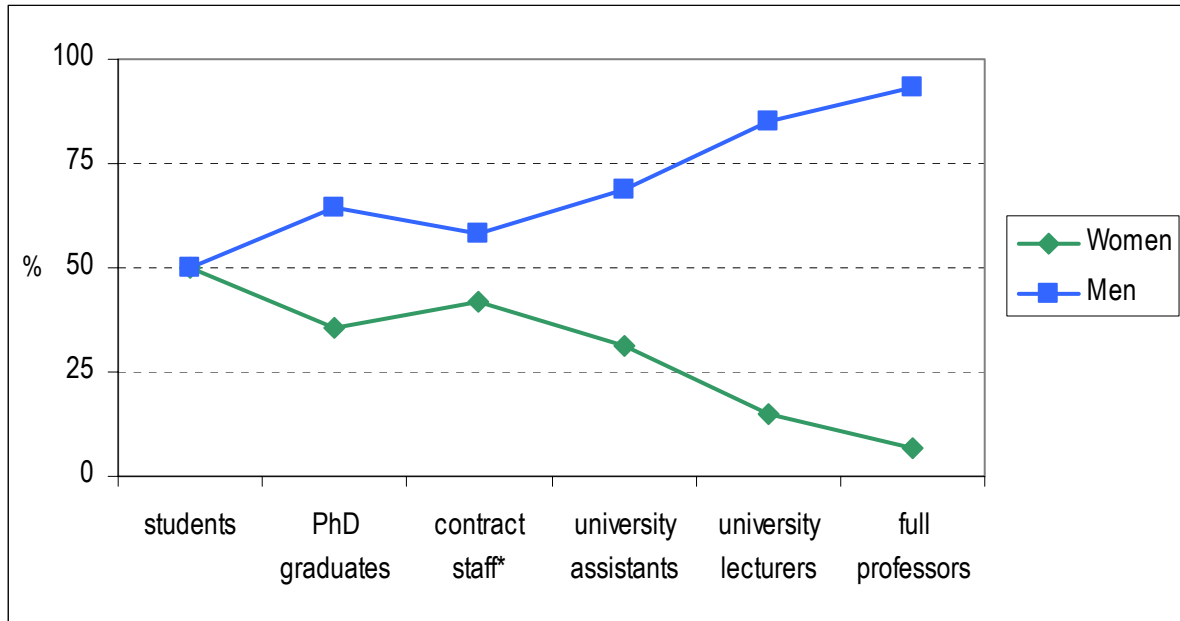
2.1 Women and men in Austria’s higher education system

In Austria, as in most other European countries, the system of higher education is highly segregated by sex.⁹³ As has already been described in the previous training papers of the Training Research Network, female academics are mostly found among the lower ranks of the university hierarchies, with very few

⁹³ For a concise overview of the situation in Europe see Laafia/Larsson (2001). More details on the individual countries can be found in European Commission (2002a).

women in top level positions (Poulsen 2002: 11-25). The following graph gives a general overview of the representation of women and men at the various steps of the career ladder at Austrian universities and clearly shows the horizontal segregation of Austria's higher education system.

Graph 1: Relative share of women and men at Austrian universities^o, 2001



Source: own elaborations based on BMBWK (2002c:104).

^o Not including universities of arts

* Contract staff = contract assistants and lecturers

From the diagram, we can see that in 2001 there are largely as many female students as there are male. On this level, the female share is 50.2%. When we look one step further, we notice that there are already fewer women than men attending university at a postgraduate level. Fewer women are pursuing doctoral studies and also the drop out rate of women seems to be higher since there are even less women graduating with a doctoral degree. Further up the career ladder, the segregation becomes even more distinct: Women make up just above 31% of university assistants, 14.9% of university lecturers and 6.8% of full professors at Austrian universities. With 41.8% women are relatively highly represented among contract assistants and lecturers which means that they are able to get into the university system but are more likely to find employment in insecure positions (BMBWK 2002c: 104).⁹⁴ This unbalanced situation becomes even more precarious when we consider that the doubling of the proportion of female professors in the last 30 years is partly explained by the creation of a single new category of professor through the University Organisation Act in 1993

⁹⁴ Please see also appendix IV, table 5.

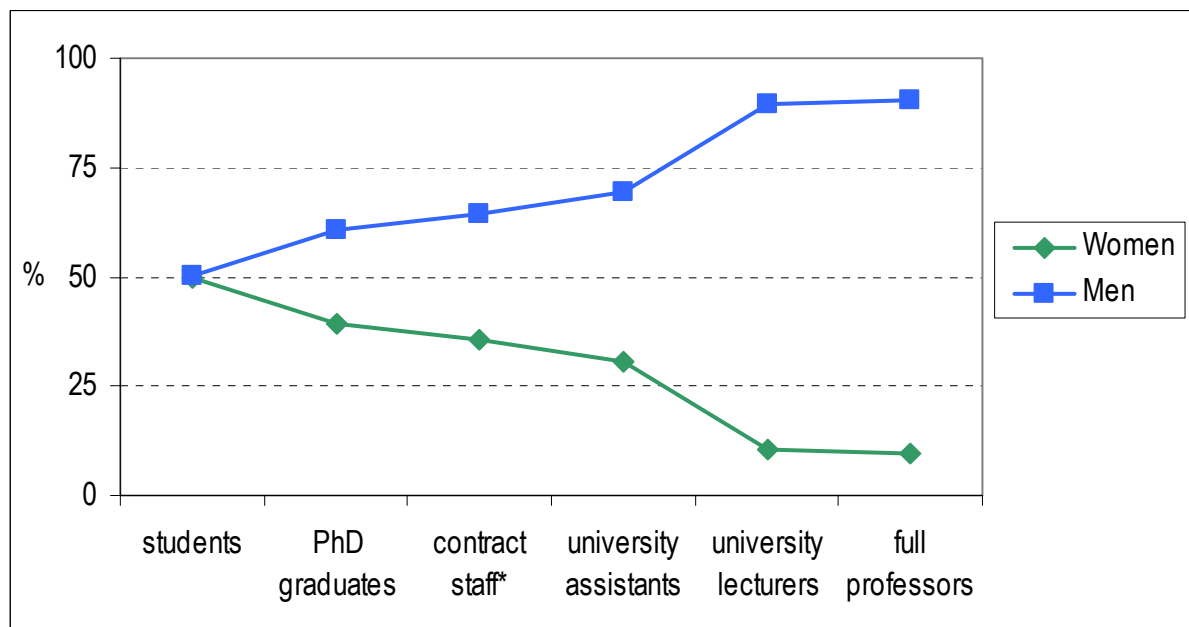
(European Commission 2002b: 8). We can therefore conclude that the vertical segregation in the system of higher education in Austria is very pronounced.

Regarding the different disciplines there are prominent discrepancies in regards to the female and male shares. Particularly in the humanities women are relatively highly represented on the student level as well as on the level of scientific staff. In the winter semester 2000/01 around 76% of the students in the humanities are female, and 37% of the assistants and 15% of the professors in the same discipline are women. In contrast, in the technical sciences only 25% of the students are female. This distribution is also represented on the higher academic levels. At faculties of mechanical and electronic engineering 4% of the assistants and 2% of the professors are women (BMBWK 2001). Even though this is only a part of the whole situation at the universities it becomes clear that there is strong vertical segregation in the higher education system as well.⁹⁵

2.2 The situation at the University of Innsbruck

Looking at the situation of women at the University of Innsbruck we see a similar picture to the one on the national level.

Graph 2: Relative share of women and men at the University of Innsbruck, 2001



Source: own elaborations based on BMBWK (2002c:103)

* Contract staff = contract assistants and lecturers

⁹⁵ For more statistical information on the situation in Austria see BMBWK (2001). For an overview on the situation in several European countries see European Commission (2000).

Among students, the relationship of female and male participants in higher education is balanced in 2001 but even only one step further up, when we look at the number of students graduating from a doctoral program, there are more male than female graduates. The further up the career ladder the more there is attrition. At the University of Innsbruck the share of female academics among contract assistants and contract lecturers is 35.8% and 30.5% among university assistants. The representation of women goes down to 10.7% among university lecturers and to only 9.8% among full professors (BMBWK 2002c: 103).⁹⁶

In Innsbruck, there are also differences according to discipline. Amid the seven faculties we can find the highest share of female academics in the humanities. In 2001, women constitute 65.7% of all university students at this faculty. They have a share of 58.8% among contract assistants and lecturers and of 54.8% among university assistants and 21.8% among university lecturers. On the level of professorship, this faculty has the highest rate of women professors in Austria with a female share of 24.4% (BMBWK 2002b: 98). At the faculty of catholic theology the rates of women are relatively low. On the student level the percentage of women is 29.2% and it goes down to 10% among university assistants. There are no woman professors at this faculty. The female share is also comparatively low in other disciplines. For incidence there are only 4.7% female professors at the faculty of natural sciences and there are none at the faculty of law (BMBWK 2002c: 103).⁹⁷

In the report on affirmative action at the University of Innsbruck the current numbers are compared with the nominal figures. It is the aim of the affirmative action plan to reach a female rate of 40% on all employment levels. Since the rates vary and are partly relatively low several steps are necessary. So if the female share on a certain level is only 0% the nominal rate is 5% and it is supposed to double when the share so far is below 10%. In all other cases it is to be increased by 20% until it reaches 40%. In the analysis of the developments since 1999 it becomes visible that even though the female shares have risen in most areas during the last years the nominal rates have not been reached. The only exception is the level of contract assistants (Retti 2002b: 11).

2.3 The legal framework of the junior faculty at Austrian universities

Before we can analyse the situation of junior faculty in Austria it is necessary to define the corresponding occupational positions. This is a rather complicated

⁹⁶ Please see also appendix IV, table 6.

⁹⁷ The problematic situation in some faculties of the University of Innsbruck is discussed in the report on the affirmative action plan. Here also negative trends are reported (Retti 2002a).

task because the relevant employment law for university teachers (“Universitätslehrer-Dienstrecht”) has changed four times since 1999 and therefore, similar employment situations - old and new ones - coexist parallel to each other (BMBWK 2002c: 25). Here, I will briefly outline the most important legal aspects concerning the sample of this study to create a framework for the following interpretation.

Generally, the junior faculty consists of a variety of employment situations that the individual members find themselves in. According to the old law, this comprises different forms of university assistants as well as contract assistants. Before the reform a graduate could enter university as a **university assistant** for a limited period of time, usually four years. After this time, it was possible to apply for further employment if the applicant held a doctoral degree. The new position then usually lasted for a duration of six years. After this period the assistant could apply for a position as civil servant. After the reform of the employment law in 2001, it is now no longer possible to start a university career as a university assistant because one of its major aims was the repeal of university assistants to become civil servants⁹⁸ (Kucsko-Stadlmayer 2001: 9-13).

A second option to enter university was the position as **contract assistant**. This was possible for those who were not able to be appointed as a university assistant because of legal reasons such as part time employment or having passed the age limit of 40 years. The career path is similarly structured to those of university assistants. There are three steps with the last one leading to permanent employment at the university. This form of employment is now also abolished for newcomers. The existing forms of employment will generally not be interfered but certain limitations can occur (e.g. extensions are no longer possible) (Kucsko-Stadlmayer 2001: 15-18).

After the reform of the employment law, new forms of employment have been introduced. Every person trying to enter university as academic staff will now have to do so according to the new regulations. Particularly for this reason the new category of **academic employee in training** has been created to allow graduates for specialisation in a scientific field in addition to work on a dissertation. Generally, the employment is limited to a period of four years. The tasks are different to those of an assistant. Commitments in teaching are limited and half of the working time can be used for personal education. After this phase

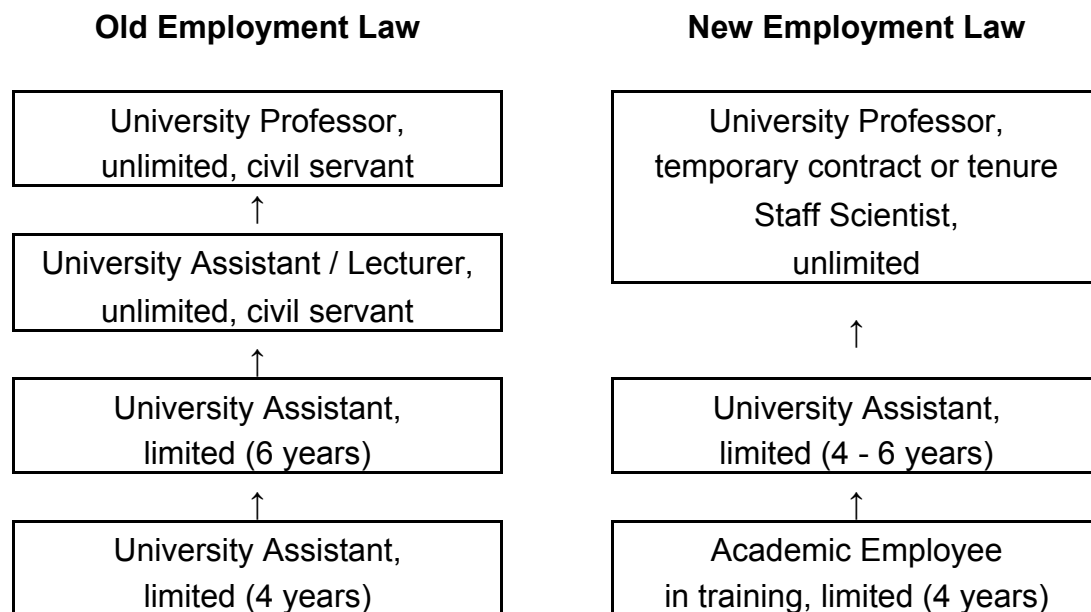
⁹⁸ On its website the BMBWK claims that the reform was necessary to prepare Austria’s university system for international competition. Therefore, the conditions in other European countries were taken into account. As a result the ministry declares that no career path into permanent employment had been found for the position of university assistant (Source: <http://www.bmbwk.gv.at/start.asp?OID=5252&isIlink=1&bereich=2&gwort=1>, 26/11/2002).

of training is successfully completed, the person can apply for an assistant position (Kucsko-Stadlmayer 2001: 25-26).

Besides the academic employee in training, there is only a single category of **university assistant**. The assistant is employed by the university for a limited period of time which depends on the specific needs and usually varies between 4 to 6 years. Prerequisite is that the applicant holds a doctoral degree. After the contract is expired the assistant is free to apply for an assistant position again or for professorship. In exceptions it is also possible to become staff scientist. This is also a new category based on unlimited contractual employment (Kucsko-Stadlmayer 2001:23-24).

The following diagram may help to understand the employment situation in the Austrian university system.⁹⁹ On the left side, the career path of university assistants according to the old law is shown. On the right side, the new career path after the reform of the employment law becomes clearer. This of course is a very short version of a complicated matter but it might help to obtain a first overview.

Graph 3: Career paths at Austrian universities according to the old and the new employment law for university teachers



Source: Own elaborations based on

<http://www.bmbwk.gv.at/start.asp?OID=5252&isllink=1&bereich=2&gwort=>, 26/11/2002.

⁹⁹ For more details on which regulations have changed in regards to the different positions see BMBWK (2002c: 29-31).

Besides the different forms of employment that are regulated by the specific law there are others which do not fall under these regulations. Also adjunct faculty belongs to the medium ranks of the academic profession even though their employment is not regulated by the employment law for university teachers but through general public law (Lins/Müller 1987: 12).

3 Methodological approach

3.1 The group discussion: a qualitative method

In the field of gender studies, there has been a long debate on appropriate methods to explore relevant issues. Even though many researchers are in favour of qualitative approaches today it is widely agreed upon a mix of methods. The application of qualitative methods as well as quantitative methods is supposed to be necessary depending on the particular research focus. Disregarding of the chosen method it always seems to be crucial to be aware of gender as a factor of influence when using conventional practices (Althoff et al. 2001; Behnke/Meuser 1999). The Research Training Network includes different methods in its research. After an analysis of the higher education systems in the participating countries and a statistical overview a mail survey was carried out to examine the situation of female professors in comparison to their male colleagues. As a final step, a qualitative study will round up the picture. In the case of Austria it was decided to organise group discussions with female and male members of the junior faculty to analyse their current situation at the university and their future career perspectives.

In **group discussions** the participants are expected to develop their own opinions in the flow of the discourse. The verbal exchange with the other members of the group produces individual as well as collective experiences of female and male assistants. In the literature on qualitative methods the group interview is generally regarded as a means to get access or to reconstruct individual opinions (Bohnsack 1999: 124; Flick 1999: 133). Similar to focus group interviews, the participants of the discussion converse among themselves and have the freedom to raise issues that are relevant to them rather than issues determined in advance by the researcher. The role of the moderators is a rather retracted one.¹⁰⁰ They only stimulate the discourse and do not intervene much so that a dynamic process develops (Wibek 2001: 4). Because of this reason the

¹⁰⁰ To grasp the complex situation two moderators are necessary. The participants are supposed to discuss with each other and their attention will not focus on a single chairperson (Behnke/Meuser 1999: 47). Also, it should be easier for two moderators to deal with specific problems of the research process and to notice particularities during the group discussions. In this study, Tanja Kreetz was acting as a co-moderator.

moderators only get involved to start the discourse and later merely interfere when the discussion slows down and runs the risk to end abruptly (Flick 1998: 118; Flick 1999: 135).

The course of the discussion starts with a phase of explication. The moderators introduce themselves and explain their research aim to the participants. We briefly presented the Research Training Network and our individual research topics. As a next step the participants introduced themselves and told the group about their positions at the university. This means serves to familiarise the participants with each other and to start the discussion. Then it is the task of the moderators to engage the participants in a debate with the help of a “discussion stimulus” (Flick 1998: 119; Flick 1999: 136). Therefore, the conversation was initiated with a general request. We wanted to hear of the experiences of the participants regarding their careers in the university system. During the discussion we limited our involvement to the formal direction and some topical steering. We only intervened to stimulate the discourse or when the participants lost themselves in details. Additionally we wanted to make sure that certain areas that are of interest for this research were covered. Therefore, we asked several questions in the case that certain issues had not been dealt with by the participants before.¹⁰¹ For the interventions we were trying to keep to the ideas of Bohnsack. According to him, the group discussion is organised according to eight reflexive principles (Bohnsack 1999: 212-216):

1. The entire group has to be addressed by the moderator so that there is no influence on the distribution of contributions by the participants.
2. Topics are only suggested, never explicitly prescribed so that there is no direction of how the issue is dealt with by the participants.
3. Questions are intentionally and “demonstratively” vague to encourage the participants to give comprehensive and detailed accounts.
4. The moderator does not intervene in the distribution of contributions so that the participants organise the discourse.
5. It is necessary to generate detailed descriptions to get access to the collective habitus of the group.
6. Immanent inquiries are superior to the initiation of new topics.
7. After the central topics have been dealt with the researcher can ask about issues that have not been handled.
8. Contradictory sequences of the discussion are re-addressed to solve these contradictions.

¹⁰¹ See guidelines for the group discussion in appendix III.

3.2 Procedure and setting of the group discussions

For this study, two groups of participants were necessary: One group with female junior academics from the University of Innsbruck which relates to the overall target group of the project and a second group consisting of male junior scientists from the university serving as a contrast group for the study of female assistants' experiences with an academic career. Regarding the disciplines, it was decided to have a closer look at the social sciences and the humanities. Considering the chosen disciplines of the survey of the previous working phase as well as the general existence of female junior academics at the relevant departments I chose to contact the members of the junior faculty from the following departments at the University of Innsbruck: History, National Philology (Literature), Languages and Literatures, English Studies, Slavic Studies and Roman Studies, Ethnology, Economics and Business Administration.

In this paper the medium ranks of the university hierarchy rather than top rank positions are analysed as I hope to receive findings on *current* obstacles and chances that the academic staff encounter on their career paths. This is why discussions with the junior faculty (and not with professors) were conducted. With this decision I was hoping to get statements on recent experiences which can be attributed to today's conditions in higher education as a work place.

By using the internet sites of the appropriate institutes, I collected the addresses of female and male assistants at the University of Innsbruck. In all, I asked 44 persons for participation including assistants, academic employees and adjunct faculty hoping that I could assemble at least 5 participants in each discussion.¹⁰² I sent out invitations for group discussions to 18 female assistants first since I wanted to start with their discussion. In cases where I did not get a reply I have also called these women in a second step to see whether they were interested in participating or not. Generally, they were all open to join the discussion and interested in the issue but several of them of course, did not have time on the given date. In the end, 7 women accepted the invitation and 5 of them eventually joined the group discussion at the Faculty of Social and Economic Sciences in November 2002.

Parallel to the preparation for the first session, I started to invite male researchers from the junior faculty. This time it seemed to be harder to organise a discussion due to tight time schedules of people. For this reason I had to

¹⁰² The optimal number of participants in group discussion varies but it is assumed that smaller groups are favourable to achieve an in-depth discussion on a certain issue (Bernard 2000: 210).

reschedule the discussion and address additional male assistants in other institutes of the university. Altogether I invited 26 male candidates and was able to get five acceptances for a date in November 2002. Despite of this, only one assistant turned up on time. In the end, we managed to have a group discussion with three male academics. Two cancelled less than an hour before.

Organising the group discussions I experienced differences among female and male junior academics. Whereas the women seemed to be open and interested towards the topic there was much less reaction from the side of their male colleagues. Also the male assistants seemed to have less time or to be not as much willing to spend their time on such an affair. There was even one person asking about his own benefits of taking part in the discussion. Altogether it was rather difficult to find a date that suited all potential participants. Therefore, the positive aspect of collecting information of several persons at one time is compensated by the relatively high effort that has to be spend on organising a session (Flick 1998: 121). During the discussion itself both parties seemed to be open and willing to engage in a discussion about their individual experiences at university. There was no difference in relation to sex.¹⁰³

The composition of the single groups was rather homogenous but the individual participants did not know each other beforehand. This is seen as an advantage because participants tend to be more open in front of people who they may not meet again after the discussion (Bernard 2000: 210). Even though the participants do not necessarily belong to the same birth cohort and differ regarding their private situations they are equal in the major dimensions which relate to the main focus of our research: they have the same sex and the same occupation. Therefore, the members of the group should have some comparable experiences.

Despite the critique that this method does not record non-vocal exchange (Te Have 1999: 52) we decided to audiotape the discussions. While the existence of a tape recorder usually does not have great influence on the conversation using videotape could have had a negative impact on the contributions of the participants because they may have felt intimidated. As a consequence, the discussion could have been less dynamic (Flick 1998: 169). Moreover, in this research context it is most important to hear about the individual experiences than to see gestures. In addition to the taping the two moderators took notes of the individual contributions as well as of non-verbal expressions. Afterwards the material was completely transcribed. Even though some passages are less

¹⁰³ Of course, there are differences in regards to which issues have been discussed in the course of the discussion and how they have been dealt with (see the results in chapters 4 and 5).

significant than others this is a good procedure since the analytical process typically starts when the researchers transcribes. Hence the analyst becomes familiar with the data while constantly listening to the tape and can start to notice important aspects of the conversation (Wibek 2001: 5). In addition to the material from the group discussions I also collected further data on the participants such as socio-demographic facts. All of the participants sent in their *curricula vitae* which I used for the interpretation.

3.3 The analysis of the material

As the results of the discussions are provided by two different groups of persons this could possibly bring up different aspects of a career in the same professional field. Originally, it was the intention to use the documentary method for the interpretation of the material. Through the application of this method two different “collective orientation frames” of the groups could have been made visible which possibly provide explanations for different ways of pursuing a career in a similar work environment and the various factors influencing a career in academia (Bohnsack et al. 2002: 177). But because of several reasons such as technical problems with the recording and the very small number of discussions the question arose if this method is appropriate. Since gender-specific “experiential spaces” can not be eliminated and because it is not possible to generalise the results and form types from the available material it was necessary to re-evaluate the choice of method for analysis.

Due to restraints on time and personnel I decided to do a qualitatively oriented **content analysis** for the examination of the transcribed material. This method is one of the classical procedures to analyse text material and is mainly directed at investigating characteristics of content. One of its features is the use of specific categories which are employed to analyse the data. Generally, the categories stem from theoretical assumptions or they derive from empirical findings. In the course of the interpretation the categories and the empirical material are constantly assessed against each other and adapted if necessary (Flick 1998: 192-193).

With the help of available literature on the situation of academics recently published in Austria I developed several categories. These categories mirror the different factors that influence a career in the university system. In the following the material was analysed according to themes which were then categorised into several topics and sub-topics and labelled with a short heading to summarise the content of the sequence (Wibek 2001: 8). From the results of the empirical material not all of the developed categories could be filled and others had to be

added. The advantage of this rather flexible procedure is that the outcome is little restricted by conditions set beforehand by the researcher.

The content analysis in form of a thematic analysis gives an extensive overview of the empirical data and reveals patterns and tendencies in the individual group discussions. Anyhow, this method is criticised because it leaves out the dynamic process of interaction among the participants of the group discussion. Therefore, it is often seen as a starting point in the process of interpretation from where other methods of analysis follow (Wibek 2001: 9). But as mentioned before it is hardly possible to use this procedure for the present study due to the very limited amount of empirical material.

3.4 Characteristics of the sample

The sample of this study was chosen in regards to sex and occupational position (see chapter 3.2). In the following, a few more characteristics of the participants are described. Since the sample is very small the figures do not tell us anything about the distribution of specific characteristic among the junior faculty in general. These numbers will help us though, to interpret the individual statements during the group discussions.

Table 1: Highest qualification of the interviewee

Qualification:	Women	Men	Total
Master's Degree	1	2	3
Doctoral Degree	4	1	5
Total	5	3	8

Of the 8 participants of the two group discussions, 3 have achieved a master's degree ("Magistra" or "Magister"). They finished their studies with a diploma thesis at an Austrian university. One of them is a woman (W5) and the other two are men (M1 and M2). Five of the interviewees hold a doctoral title. They have all written a dissertation. Four of them are women (W1-4) whereas only one man (M3) holds this degree. In this case, this distribution is obviously not the result of a better performance of women but due to a different age structure. The two men with a master's degree still have not reached 30 years of age, they are working as academic employees in training and are both currently writing their doctoral thesis. The one female assistant holding a master's degree is older than the two men with the same qualification. She is between 31 and 40 years old.

Table 2: Occupational position at the university

Position at the university:	Women	Men	Total
University assistant, old employment law:	2	1	3
Contract assistant; old employment law:	1	0	1
University assistant, new employment law:	1	0	1
Academic employee in training, new employment law:	0	2	2
Adjunct faculty:	1	0	1
Total:	5	3	8

The participants of the group discussions are quite different in their occupational positions at the university. Half of them are in a relatively stable position. Two women (W1 and W3) and one man (M3) are employed as university assistants according to the old employment law for university teachers and have been working as assistants for approximately ten years. W4 is working as contract assistant at the university of Innsbruck since 1989. The rest of the participants are in rather temporary positions. They are either university assistant according to the new employment law (W2), adjunct faculty working on contractual basis (W5) or academic employees in training (M1 and M2). W2 started her academic work in the early nineties whereas the other three academics only got involved with it within the last three years.

Table 3: Age structure

Age Structure:	Women	Men	Total
20-30 years	0	2	2
31-40 years	4	1	5
> 40 years	1	0	1
Total	5	3	8

In Table 3, the age structure of the participants of the group discussion is shown. Most of the participants are between 31 and 40 years of age. Particularly women are found in this age cohort. There is only one female assistant who is older whereas there is no man over 40 years of age (W4). No women but two of the three men are under 30 years of age (M1 and M2). They are the ones currently working on their dissertation. In all the female junior academics are relatively older than their male colleagues.

Table 4: Martial status

Martial Status:	Women	Men	Total
Single:	3	0	3
Partnership:	2	3	5
· married	2	1	3
· with children	1	1	2
Total:	5	3	8

Table 4 shows the martial status of the assistants. More than half of them are single whereas the others are in a relationship. Of the sample three women are single (W1, W3 and W5) and two are currently engaged in a partnership. They are both married and one of them has an adult child (W4). Regarding the men, none is single. They all have a relationship and one is married and has young children (M3). In the sample there are no single parents.¹⁰⁴

4 Careers in academia: female and male career patterns

4.1 The entry into the university system

In Austria, the legal framework of academic careers is ruled by the employment law for university teachers. There, the regulations regarding the junior faculty can be found (see chapter 2.1). In this chapter the focus lies upon the actual career patterns of young female and male academics. Here, the results of the group discussions will be compared with findings from the literature.

For women, the entry into the university as a work place happens more or less in two ways. On the one hand, a continuous transition from being a university student into being employed by the academy takes place. Very often, the preconditions for this are created during the time of studying in the form of working for a member of the faculty. After their graduation, the women manage to receive contracts to teach a course, they start a doctoral program or they are asked by their supervisors if they want to stay at university and work there (Buchinger et al. 2002: 69). On the other hand, they start their career on an indirect way. Besides the fact that there is a lack of vacant positions these “detours” on the career path occur because the women raised their children, because they worked in a different field or because they were unemployed for some time. In some studies, it becomes clear that the women did not have any concrete career plans before they entered university. They also speak of having

¹⁰⁴ This distribution corresponds to the findings in Hebenstreit et al. (2000: 229). See also chapter 5.4 of this paper.

found their first position at the university by chance (Buchinger et al. 2002: 82, Ingrisch/Lichtenberger-Fenz 1999: 54, 111).

These paths are also reflected in the discussions with the female academics. By means of the personal records of the women that are available, we can see that the foundations of an academic career were laid already during the studies. One university assistant (W3) was working as a student assistant and tutor before she finished her degree and another participant of the group discussion (W5) was involved in research projects. Nearly all women stayed at the university directly after their graduation. They started their professional career through project cooperation, short-term employment or by being a contract assistant. Only one female participant (W2) completed additional training in computing and taught courses at another institution before she got a position at the university.

It is striking that three women speak of coincidence when they talk about how their career started. They say that it was coincidence that they got their first position. An opportunity opened up in front of them in form of a project or a vacant position and they took their chance. One woman says that she “coincidentally” got a vacant position because someone else went into parental leave. Later, she received a newly established position at the same institute (W1, page 2). Another women reports that she entered the academic occupation “accidentally”. Because of her qualifications she received a work contract.

“I can only agree that the occupation came up coincidentally. Among other things because there was a work contract that had to be filled in but there weren’t too many persons with such elaborated computer skills and I think, if I hadn’t been there accidentally someone else would have done it.” (W2, page 2)

Also the third female assistant is talking of coincidence. Originally she did not want to pursue an academic career because this appeared too time consuming to her. During her studies she had worked as tutor and later applied for an assistant position to finance the completion of her studies. She says that she “got stuck” on this position and after a few years decided to stay and follow a career at university (W3, page 2-3).

The other two women say that they were interested in research at a rather early stage. One of them excludes that coincidence could have been a factor of influence. Because of her personal research interest she was occupied with a certain topic when she got the opportunity to participate in a project. However, later on she describes the circumstance that there was a vacant position in her

research field as coincidence. But for her this does not apply in regards to her scientific activity in general.

“In so far I do not think that it was coincidence, but it was an affair of heart, which I had already discovered when I was 14 years old and which emerges again.” (W4, page 3).

Also the fifth woman states that she followed her own interests. She was involved in research projects already during her studies. When there were no vacant positions after her graduation, she began to work as adjunct faculty at several universities (W5, page 4).

In conclusion it can be said that it was possible for the women to enter university when opportunities were available albeit not all of them say that it happened by chance. Even if their individual qualifications or own research interests did play a role, additional external factors had an affect as well. In regards to the women mentioning coincidence as an important factor Ingrisich/Lichtenberger-Fenz (1999: 59) point out to the fact that no one-sided conclusions should be drawn from individual statements, since terms such as luck and coincidence can describe different occurrences. In contrast, Hebenstreit et al. (2000: 245) think that the assertions of women who said they were lucky with their professional career express low self-confidence.

As for men, in most cases a continuous transition from studying to working at university can be observed. This means that they often remain at the same university directly after their graduation. Male assistants also speak of the fact that coincidences mattered in regards to finding the first occupational position. Nevertheless, Buchinger et al. (2002: 92) evaluate the statements of male assistants and assume that they actually pursue “career management” but would not emphasise their strategical behaviour. Instead, they would play it down.

The continuous paths of male academics are also visible in the group discussion with the men. Two of them were able to find a position as academic employees after their graduation (M1 and M2) and the other one entered university by participating in a project (M3). They also managed to establish some foundations for their further involvement at university during their studies. M2 was active as a tutor whereas M3 was asked if he would like to work at the institute before he completed his master’s program.

It is interesting that no male academic speaks of coincidence as having caused the start of his academic career. Instead, the two younger men say that they wanted to write their thesis, which generally is one of the principal reasons for

entering the junior faculty (Bochow/Joas 1987: 81). To obtain a doctoral degree it appears useful to them to work at university. They believe to have more time for their dissertation than when working in the private sector. Nevertheless, one of the two says that he “slipped” into his current position (M2, page 4). The third assistant seizes an opportunity without having had any career plans before. Even though he does not speak of coincidence we can say that the way he accessed university follows a similar pattern to the one of some women.

“I was simply asked, at a time when I wasn’t finished with my studies. I had not racked my brains at all .. over what I would like to do later on. I thought to myself: Yes, this actually isn’t too bad. I know this, I will continue with it. .. This is how the whole thing started “ (M3, page 6).

Although the male participants do not speak of coincidence having been a factor of influence when starting a career, they also do not mention their own interests of research or career plans whereas some women do. Consequently, in this case the doubt arises whether men really pursue their careers more strategically than women. This might be the case for the two academic employees since they see clear chances for themselves in the private sector after obtaining their doctoral degree. They work at the university to qualify for the job market by writing a dissertation. Generally, the question has to be raised why the female academics say that they entered university coincidentally whereas the men of the discussion do not use this term even though both groups show similar behavioural patterns.

4.2 The further career paths of female and male academics

According to Buchinger et al. (2000: 80, 92) there are less differences on the further career paths of female and male researchers in relation to gender than in regards to the different disciplines. Scientists from the humanities more often strive for habilitation, while there seems to be less pressure to write a habilitation or even dissertation on academics from the technical disciplines. Contrary to this, Hebenstreit et al. (2002: 207-210) have found some gender-specific differences in their research. According to them, men are more often integrated in the university structures during the doctoral program than women. They also need less time to finish their thesis due to a more intensive supervision by their professors.

It is often not clear if junior academics will stay at university since the private sector offers attractive alternatives. So far, there are no analyses of the rates of junior academics leaving university. However, in a study at the Vienna University of Economics and Business Administration two thirds of assistants

intended to change into the private economy (Mayerhofer 1998: 88). There are also differences in relation to discipline. Academics from the humanities see less perspectives outside university than the junior faculty of technical disciplines. Nonetheless, it is common to most assistants to remain at university when they are in a permanent employment situation (Buchinger et al. 2002: 81; Lins/Müller 1987: 123). Altogether assistants predominantly remain at the same institute where they began their academic career. There are no gender-specific differences. On this level of the career ladder, there are only few incentives for mobility, since only a habilitation would offer a possibility to move up the career ladder (Hebenstreit et al. 2000: 195). According to Buchinger et al. (2002: 92) the further career paths of men are rather straight whereas women's are more frequently interrupted.

The female participants of the group discussion show a relatively straight career pattern after their entry at university. Two of them had to move to another city to find work at another university. W1 went to another Austrian university to work as contract assistant and W4 was working as scientific staff in Germany. None of the women took parental leave. Even though one female scientist became a mother she also worked part time. All women think that it is necessary to hold a doctoral degree if they want to follow their academic career. Most of them have obtained this qualification while one woman (W5) is still working on her doctoral thesis. Two scientists even hope to reach their habilitation (W1 and W3, page 5). Generally, the perspectives of the women are focussed on the higher education system in Austria. If necessary they can also figure themselves being involved in non-university research, e.g. in scientific projects. In this investigation, this does not only apply to the assistants from the humanities but also to the ones from the economic sciences.

Also in this study, the career paths of men are rather straight. This is not surprising for the two academic employees since they are still at the beginning of their career. The university assistant has been employed by the university continuously. Yet he interrupted his career to take parental leave and look after his children several times. None of the male researchers wants to pursue a habilitation at the moment. Regarding the two young researchers this again is not surprising because they still have to overcome the first obstacle which is their dissertation. The university assistant even explicitly says that he wants to leave university (M3, page 2). He sees alternatives for himself in non-university research and would like to organise his own projects. In general, his ideas are little concrete and it is possible that his wish to leave university is connected with not wanting to get involved in the process of habilitation which would be the next important step on the academic career ladder. As mentioned before, the two academic employees see alternatives in private enterprises. They are both

working in the economic discipline of the university and can imagine themselves working in the market economy (M1, page 3; M2, page 5). M2 though is afraid that the knowledge that he acquires while working at university may be too specialised and therefore be a problem when looking for a job. This doubt is similar to the findings of Mayerhofer (1998: 163) where assistants do not think that their experiences at university will help with finding a position.

5 Factors influencing the university career

5.1 The effect of the general situation of the higher education system

In Austria it is becoming increasingly difficult to remain at university or to be employed on a permanent basis. The conditions are aiming at a permanent influx of junior academics that will leave again after a certain period of time (Mayerhofer 1998: 84). In interviews assistants claim that missing vacant positions at professorship level are a large obstacle on the career path. There seem to be little incentives to strive for an academic career because of a lack of perspectives (Buchinger et al. 2002: 82). Furthermore, the limited vacancies at the universities are seen in connection with the competition of different groups of personnel. Here, the interviewees mention the competition of those who are integrated in the university system and those who are not. Adjunct faculty would be in a much more insecure position than permanent staff. This is something that relates mainly to women because they are more often affected by uncertain employment conditions (Buchinger et al. 2002: 121).¹⁰⁵

Also in the group discussions of this study vacancies as well as the competitive situation in general are important factors that influence the career perspectives. The female scientists state that there are hardly any vacancies at the individual institutes (W5, page 4). They connect the limited employment opportunities with the reform of the employment law for university teachers of 2001. Although all women prefer to work at university they can see certain limitations due to the present developments (W1, page 5). The topic of competition is discussed in context with the content of the scientific activity on the one hand. Here, the number of publications or the acquisition of resources is an issue (W2, page 10). On the other hand the competitive situation is dealt with in regards to the employment of internal and external personnel. Adjunct faculty are not seen explicitly as competitors to university employees. In this section of the discussion the women are rather concerned with the fact that the institutes are dependent on external staff that earn less than their colleagues employed by the

¹⁰⁵ There are no studies yet that are concerned with the effects of policies and reforms in Austria's higher education system on career perspectives. Currently Jessica Bösch is analysing this correlation in her dissertation.

university. They discuss the competition between faculty members and external lecturers and their uncertain situation.

“The people who do not have a permanent position but keep in touch with university through teaching assignments are completely in a disadvantage. They have to take what they can get.” (W2, page 18)

The statements of the male researchers are very similar to those of their female colleagues. The men think that the new employment law creates a highly competitive atmosphere. Here, the small number of vacancies is put into connection with the legal changes. Particularly, the two academic employees think that there are too few vacant positions. They assume that there will be a high drop out rate in the future so that junior staff will not have much chance to pursue an academic career after they are finished with their dissertation (M1, page 18). The university assistant finds himself in a relatively secure position with little competition because he is employed under the old regulations. But even he sees the negative consequences of the reform of the employment law (M3, page 17). The men in this study also deal with the topic of competition in connection with the lack of exchange among colleagues and superiors. They assume that very often discussions do not take place because researchers are afraid that someone else could steal their ideas (M1, page 14).

5.2 Working conditions at the institutes

5.2.1 The employment contract

The ETAN-Report on Women in Science points out that employment conditions are becoming more and more flexible. The rate of temporary contracts is increasing. This casualisation process concerns mainly women because they work more often on contractual basis than men. Within this lies the potential risk that the affected persons are not able to remain within the university system and that it is difficult for them to make any career plans (European Commission 2000: 19).

Other studies confirm these results. Women work relatively more often in temporary employment and part time than their male counterparts (Buchinger et al. 2002: 59, 110). Since employment conditions are limited to a certain period of time, it is necessary to extend the contract or to sign a new one. The succession of different contracts is perceived as a factor of insecurity by the affected persons (Bochow/Joas 1987: 108; Hebenstreit et al. 2000: 204). The argument why the junior faculty is faced with this rather casual employment conditions is that they are still in the process of training and that they get

qualified for either academic work or the job market. Therefore, the junior faculty has to go through a relatively long time span until they get the chance to reach professorship (Mayerhofer 1998: 84). Regarding these conditions there are no gender specific results. Nevertheless it seems to be obvious that particularly the female researchers of the junior faculty are affected to a high degree by the casualisation process since they are very often employed on a temporary basis.

In this study, three of the women are in a relatively stable position whereas the two other women find themselves in a much more insecure situation. One is a university assistant and falls under the new regulations of the employment law whereas the other woman is adjunct faculty and depends on the extension or on new contracts. Of the men, one is employed as university assistant according to the old regulations whereas the other two are academic employees which means that their employment at the university is limited to a period of four years at the moment. One woman (W4) and one man (M3) are working part time.¹⁰⁶

The results of the group discussions confirm that temporary employment leads to more insecurity among academics. The old employment law for university teachers in Austria was aiming at permanent occupation of the university staff whereas the reform does not have this intention.¹⁰⁷ These changes have an effect on the vocational situation and the future perspectives of the researchers. The consequences are noticed by all but they become most obvious with those who are directly affected. One of the women just recently got under the impact of the new law. In the flow of the discussion the frustration regarding her situation becomes evident. She thinks that there are personal disadvantages for herself and she can not see perspectives to remain at university. She says:

“Since I am now under the new employment law it means that my expiry date will be in four years. What will be afterwards, I ... It is hard for me to say anything about it, now. Well, if I think about the future, what is happening at the universities at the moment that really gets onto my nerves.” (W2, page 6)

The three women who are still employed according to the old employment law are more or less happy with their situation but can also see the negative impacts of the reform. They think that the chance to pursue a university career have become much more restricted. It is noticeable that only the two university assistants speak of the option to work on a habilitation. One of them argues that

¹⁰⁶ See also the description of the sample in chapter 3.3.

¹⁰⁷ Source: <http://www.bmbwk.gv.at/start.asp?OID=5252&isllink=1&bereich=2&gwort=1,26/11/02>.

this would be possible for her because she still has the chance to become permanent staff at the university (W3, page 5).

This perception is confirmed by the statements of the male participants in the discussion. They think that the new employment law creates a highly competitive atmosphere at the institutes. The two academic employees believe that there will be a high drop out rate in the future (M1, page 18). Even though they can imagine themselves pursuing a university career because of their own individual research interests they do not see clear perspectives in this area. Therefore, they are considering alternatives in the private economy. Among other aspects they use arguments related to the changes of the employment law. Not only that their employment is limited to four years but also that their future contracts will be temporary reduces the expectations to remain at university (M1, page 3; M2, page 5). In contrast, the university assistant who is in a relatively secure position intends to leave the higher education system. For him the given structures of the university are not an incentive for a further academic career. But he is also aware that a permanent salary leads to more security which is one of the reasons why he might stay at university. Hence he knows about the advantages of a secure employment situation (M3, page 24).

5.2.2 Working hours

Regarding the specific working conditions at universities academics often criticise that working hours and leisure time are not clearly distinguishable but blend into each other. Also the amount of actual working hours is much higher than the hours specified in the contracts. Assistants often speak of working hours of 50 to 60 hours per week (Hebenstreit et al. 2000: 225; Lins/Müller 1987: 33). On the one hand the relatively high workload is compensated by the liberty to organise the working day individually and by the personal interest in the work. So assistants also see positive aspects of their flexible and extensive working hours. On the other hand persons who work part-time often cannot set a limit. This is particularly difficult for those who strive for a habilitation. Also persons with childcare duties find themselves in a complicated situation since the flexible working hours and the rigid times of child care facilities can be problematic. Both, female and male academics have these various problems but men discuss them at greater length (Buchinger et al. 2002: 127-134).

The female researchers in the discussion also say that they work much more than 40 hours per week. Sometimes they work in the evenings or at weekends. Yet the amount of hours varies. Particularly in work intensive phases, like the end of the doctoral program or a research project, it is much higher than at other

times when it is comparatively quiet (W1, page 9). It seems as if the women consider it necessary to invest a lot of time to be successful in academia. This would confirm the picture of the typical scientist who only lives to follow the individual research interest (European Commission 2000: 61).¹⁰⁸ In addition, they also think that academics holding a permanent position would feel less pressure to work long hours (W2, page 10). On the other hand the women also think that the dedication to ones profession is dependent on the individual personality as well. There would be people in all fields of the professional life who would work harder than others (W1 and W4, page 9). However it is also important to the women to have time for their personal needs. It is vital to them to find a balance between the private and the professional sphere. If they do not have enough time left for their private life this would lead to negative consequences.

“Well, I work over time but I try to keep the weekend free. ... I have to find a physical balance. I have to do appropriate exercises. When I sit all day I become sick. It’s simply not possible. Even if I would want it so much my body plays a trick on me. He says: Now you are finished. You have to do something else now and take breaks.” (W4, page 9)

It is interesting that one of the women mentions that she has a bad conscience when she takes a day off from work. This is not the result of complaints of senior staff or other colleagues but derives from an internal conflict taking place because of her own heavy demands regarding her scientific work. In her statement it becomes clear that the working hours are hard to define. There always seems to be some work left at the end of the day. This circumstance becomes embodied in the conscience of the woman.

“(..) I have to make sure to take off at least one day per week. Although from time to time I have the feeling this is not allowed, that I take a day off. Because if there is work left to do then they say, why? It should have been possible to deal with it here or there. Well, one has a bad conscience if I take off a day or one and a half days.” (W3, page 9).

The men in the group discussion see positive and negative aspects in regards to the working hours at university and talk about this issue for a relative long sequence. They try to calculate how many hours they actually work. They come to the conclusion that they work about 50% extra in addition to what is specified in their contracts. In this context it becomes obvious that it is particularly hard for the young researchers to differentiate between working hours and leisure

¹⁰⁸ For further reference please see page 36 of this paper.

time. On the one hand they also use their spare time to read specialized literature. On the other hand it is hard for them to “switch off” at the end of the working day.

“It doesn’t matter where I sit then. If I sit in my room or at dinner at home I take my work with me. I cannot switch off completely. It isn’t possible that I leave my room and say that I will simply think about that problem tomorrow.” (M2, page 27)

Here, the individual persons find their own solutions. For one of the academic employees a spatial separation is helpful. He manages to get some distance from his work by leaving Innsbruck to see his girlfriend. That way he can free his mind and does not think about his research (M1, page 28). The university assistant says that his children taught him to set his limits (M3, page 27). He is also the one who stresses the advantages of flexible working hours. He thinks that they allow him to spend enough time with his family. Yet we have to consider that he is working part time when we want to judge this statement (M3, page 26).

5.2.3 Academic tasks: teaching, research and administration

It is important how teaching, research and administrative tasks are distributed among the daily activities because the recognition of academic work depends on research results. Hence the academic status is linked to productivity (Bebbington 2001: 15). In particular, publications are a prerequisite for a successful career at university.¹⁰⁹ In the general working day, teaching and administrative tasks require a lot of time so that there is little time left to conduct research (Hebenstreit 2000: 221-225). There seem to be gender specific differences in attitudes towards this matter. Male assistants seem to aim at an optimal distribution of the three areas of their work. With emphasis on their own career, they often try to free themselves from some teaching and administrative duties. This is something that is not found in the behaviour of their female colleagues. Anyhow, both groups stress that their individual research often has to be put on hold due to other demands at the institutes (Buchinger et al. 2002: 138). This situation is contradictory to the “scientific demand” to produce a high output in form of publications.

¹⁰⁹ Spender goes as far as he says that “research which is not in print does not exist” (Spender 1990: 188). The author also explains the importance of where research results are published.

In the present study the women do not talk much about their duties at their departments. Either this is not a very problematic issue or it is less important than other aspects of their work. In one case, a positive aspect is mentioned. One assistant says that work at the university is manifold because of the diverse tasks (W1, page 7). Still, when they talk about the situation at work the women criticise that only publications, and more particularly the quantity and not the quality of publications, matter (W3, page 10) whereas teaching and the participation in university bodies would not be recognised as academic work even though those activities are very time consuming (W4, page 7). The women see themselves in a competitive situation and feel pressurised to produce a high scientific outcome in form of publications. Because of this, working hours tend to be rather high. This form of pressure is a burden for the female researchers (W2, page 10).

Also the male participants of the group discussion speak little of the distribution of the different duties of their job. It seems as if this is no issue at all for the university assistant whereas the two academic employees mention the topic in relation to their dissertation. Since they do not have to give lectures and they have to fulfil only few administrative tasks, they have enough time for their individual research. Therefore, they are satisfied with the conditions in this respect. However, one of them is in charge of computer matters at his institute. He claims that this would require quite some time during certain periods and as a consequence this obligation keeps him away from working on his doctoral thesis (M1, page 5).

5.2.4 The income situation

Male assistants seem to care more intensively about their own income than their female colleagues do. Yet in general, the income situation of the junior faculty is considered as not being very good by men and women. Particularly when compared with a job in private enterprises junior academics think that they earn little. But since the occupation at the university often aims at a higher career goal the junior faculty puts up with the unfavourable relation of long working hours and little pay. Here, differences among the disciplines can be noticed. Because of the much better situation in the private economy, scientists from technical disciplines are less satisfied than their colleagues in the humanities (Buchinger et al. 2002: 142; Mayerhofer 1998: 165).

The findings of this study are similar to these results. The women do not talk much about their income situation and mention it primarily in regards to the financing of their own living costs (W5, page 10). Here, we can notice that

women who are in a relatively stable position speak little of this issue. But for the one woman who is working as external lecturer it seems to be much more important. She has to spend much energy to be able to balance the various demands and has to cope with time restraints and a financially tight situation (W5, page 10). In a general context, the income is discussed with focus on the situation of university staff members and adjunct faculty. The women talk about the differences in the pay of these two groups and think that external lecturers are in a disadvantageous situation in comparison to their colleagues who are employed by the university (W4, page 17).

Also the men consider a fixed salary as something positive in regards to the security of their livelihood. The university assistant who has got children attaches the most importance to this. But he also says that a secure income is not incentive enough for him to remain at university (M3, page 23). The two academic employees criticise that in comparison to the private economy their salary at university is too low. Because of his reason it does not seem to be very attractive to them to pursue an academic career and hence they take alternatives on the labour market into consideration. In the case of these two researchers it becomes obvious that they accept their recent financial situation because they hope to progress with a professional career with the help of a doctor title (M1, page 3; M2, page 5).

5.2.5 Communication and teamwork

Communication is an important aspect for female assistants in their working days. The regular social and intellectual exchange is of significance to them. Nevertheless, the power relations at the institutes are affected by the way communication channels are brought into play. Part time employment as well as childcare can minimise the participation particularly of female assistants in the communication processes. Also male assistants think that communication structures at university are relevant factors influencing the working conditions. They attach special importance to the effect of it on their own career and thus seem to think rather strategically (Buchinger et al. 2002: 143-146).

In the group discussion with the female researchers the women deal with the topic of communication mainly in regards to the relationship towards superiors. Even though the women do have some autonomy in their work one scientist says that she can not make all the decisions without consultation. Therefore, she thinks that “good communication with the higher levels” is important (W2, page 15). Regarding the communication with their bosses the women also mention the career talks that are supposed to take place on a regular basis. When they

talk about the interaction among colleagues they speak of the exchange of intellectual subjects. The female researchers state that there is too little teamwork at their departments. They feel like fighting a lonely battle. They call themselves isolated fighters (“Einzelkämpferinnen”) and miss the team spirit which they think could possibly be found in research institutions outside the higher education system as well as in many English speaking countries.

“But what I also miss is particularly this team, this team spirit. Yes. I would like to find it at university. (...) but at my institute I feel like being an isolated fighter and from what I can see at other universities – well, I have just had one year of overseas experience – there you can find a team and in a team things are progressing much more. (...) And the motivation! Because you always have meetings and merely talk about it. That is simply incredible.” (W3, page 7-8)

The male participants of the group discussion mention communication on several occasions. They say that there is basically no intellectual exchange at their institutes. This, as well as negative aspects in general, seems to be an important factor that influences their situation at work. At the beginning of a career this appears to be of particular relevance. The academic employees have problems with the communication structures and criticise that people discuss bureaucratic matters too often and that the social interaction is rather hostile. This creates an unfriendly atmosphere at work (M2, page 4). Teamwork is not supported in any way. The individual freedom to follow one’s own research interests would lead to no cooperation at the institutes (M3, page 7). Attempts to improve the communication have not been successful.¹¹⁰ Here it is interesting that the men try to find individual solutions to this problem and that they seem to realise them rather effectively.

“Well, the people did not take their time to deal with it [the papers of colleagues]. (...) and if something like this happens I say, okay I know anyway that only one or two read it sincerely. I know those anyway so I give it to them beforehand and then we go for lunch and then the two of us talk about it. (...) Somehow, when I see that there is no fruitful discussion when all ten or fifteen of us sit down .. then I know these two people who are interested, of whom I get good feedback, I give it to them and then we go for lunch at a quiet place and talk about it.” (M3, page 15)

¹¹⁰ Other studies have found out that attempts to improve internal information and communication flows were initialised very seldom (Lins/Müller 1987: 81).

When the men talk about communication at their institutes they also try to find reasons that there is so little exchange. In this context one of the academic employees thinks that researchers may be afraid to leave oneself wide open. He thinks that they permanently have to prove their competence in a certain field, that they are the specialists and that they are therefore under pressure (M2, page 14). Additionally, the other academic employee argues that researchers may be anxious that others could steal their ideas when they reveal them in public discussions among colleagues (M1, page 14).

In our case it is not possible to conclude with saying that communication is more important to women than it is to men in their working days. Both groups would prefer a more vital exchange and more teamwork. Furthermore, we cannot see that men act more strategically than their female colleagues. Anyhow it is interesting to notice that they develop individual solutions out of their own initiative. They are able to find some colleagues for academic exchange. Unfortunately, there are no information on this issue from the female researchers. Nevertheless, we can assume that at least some of them have been able to build up individual communication structures since they have been working successfully at the university for quite some time.

5.3 The importance of support systems

5.3.1 Financial support

The ETAN-report analyses to what degree women received scientific rewards for their research. This aspect is of relevance since prizes lead to a far reaching recognition of the work of a scientist and in addition mean an important financial support for research projects. When we have a closer look at the figures we have to notice that the situation is in favour of men. For example, only 3 of 131 Nobel prizes in chemistry and 2 of 158 in physics went to female scientists.¹¹¹ The circumstances are not much better with other international prizes where women make up a similarly low percentage of the winners. Female researchers get more rewards on the national level. Anyhow, in Europe women make up a maximum of only 7.5% of all prize winners (European Commission 2000: 18, 143-145).¹¹²

¹¹¹ The Nobel Prize in chemistry was received by Marie Curie in 1911, by Irène Joliot-Curie in 1935 and by Dorothy Hodgkin in 1964. The Nobel Prize in Physics was given to Marie Curie in 1903 and to Maria Goeppert-Mayer in 1963 (European Commission 2000: 18).

¹¹² In Germany, 12 women received the Max-Planck prize for research which was rewarded 159 times to scientists working outside the country (European Commission 2000: 145). Unfortunately there are no figures for Austria.

Another financial aspect when measuring gender discrimination are the success rates in the funding of research. Here, it is interesting that the research projects of men more often get financial support than the ones of female scientists. In almost all EU-countries the applications of women for funding are less successful. Exceptions are the Netherlands and Finland where women had a higher success rate. In Austria 41.1% of applications submitted by women and 52.1% of the ones submitted by men were approved in 1999.¹¹³ Here the question arises why women are less successful. There is no clear answer since the figures do not tell anything about the qualification of the applicants. Neither are the research topics of the submitted proposals nor the reasons for disapproval available.

In the discussion the female scientists talk about financial support in form of scholarships and projects only in a very common way and do not relate it to their own situation. In that part of the discussion where the women talk about the support of junior scientists they criticise that there are only few opportunities for financial support in Austria, a circumstance that is mainly felt by doctoral students. These more general statements are related to their own individual situations later on in the discussion. This issue seems to play an important role since the women get lost in a debate on details of a specific scholarship (page 16). In how far the female scientists received financial support themselves does not become clear in the discussion. On the basis of their curricula vitae we can see that at least one woman received a scientific prize (W2).

The male participants of the group discussion do not talk about financial support systems at all. They neither have a discourse about their own experiences nor do they mention the situation in Austria on the whole. They only talk about financial aspects in relation to their own income.¹¹⁴ From their curricula vitae we know that two of the male scientists received a prize for their own studies (M2 and M3).

5.3.2 Networks, conferences and summer schools

Informal support systems such as the old-boys-networks have often led to the exclusion of women from certain professional positions. On the basis of the historical development of the university system and the connected dominance of men it appears evident that female junior staff was less often supported than their male colleagues. Today, it is still the case that networks are male-

¹¹³Source: http://europa.eu.int/comm/research/science-society/women/wssi/downstat_en.html, 19/11/2002.

¹¹⁴ See chapter 5.2.4.

dominated and appear to be exclusionary (Bösch 2000: 61-63; European Commission 2002a: 19). Thus, the creation of female scientific networks is supportive for women's careers. Generally, female academics have a positive attitude towards networks. They are interested in this kind of support system to enforce a more active intellectual exchange among researchers. But since this exchange hardly ever takes place it still depends on the individual perseverance of a woman to climb up the academic career ladder (Gerl 1992: 141).

It is important for researchers to participate in conferences or similar events because of different reasons. On the one hand female and male academics use their participation to exchange and enlarge their own knowledge on certain issues by listening to lectures or through the feedback on their own contributions. On the other hand the presentation of individual research results leads to an increase in the name recognition of a scientist. In addition, they use the chance to establish personal contacts and hence get introduced to the scientific community. Through these, sometimes rather informal contacts research projects as well as publications can get initiated. It is interesting to see that in some studies personal contacts are more valued by female than by male scientists (Hebenstreit et al. 2000: 144, 148).

The female scientists in the group discussion are not involved in any formal networks. They even have no concrete idea how these could look like in their individual field of research. Anyhow, they wish that there would be networks for intellectual exchange. This way the women hope to be more integrated in the scientific community. Since there are no networks they have the impression that they are often left alone. One woman says that she would prefer the company of a mentor or even colleagues when she attends conferences. This could help with her orientation at such events and give her stronger self confidence when she has to give a presentation. In this context, she again speaks of being an isolated fighter (W3, page 12). One assistant mentions that there are networks in her discipline that are defined through a topic. With a look at the recent publications it would be possible to see who is working on a certain issue (W2, page 13). In any case, this seems to be a very loose definition of network. They may be helpful to find out who is working on similar problems but they probably hardly lead to a closer collaboration between groups of scientists. Therefore, it is questionable in how far those loose networks are helpful for a career. The female scientists talk little about the importance of attending conferences. Only one assistant says that it is important to be present at events like this but thinks that it is difficult to attend them without knowing other researchers (W3, page 12).

The male scientists do not discuss the importance of networks even though we explicitly mentioned this topic as a possibly relevant factor influencing their

academic career. It is possible that the men either do not have a clear conception of networks or that they do not play any role in their professional lives. However, the men attach great meaning to being present at conferences. In relation to the promotion of young scientists they state that there are obstacles though. For example they say that is troublesome that they have to present a paper when they want to attend a conference.

“Our head of institute says .. you will only go to a conference if you present a paper. So you won’t attend a conference to simply listen to the lectures even if it is form the field of my dissertation.” (M1, page 9)

One of the academic employees additionally stresses the positive effect of his participation at a summer school where he met other people working on his field of interest. For the future, he is hoping to have contact with some of the young researchers he met so that they will exchange ideas and information (M1, page 12). Also in this case it becomes clear that individual strategies are important to improve an unsatisfying situation and develop mechanisms for personal advancement.

5.3.3 Personal support

The support of supervisors at university is generally very important for an academic career. For women and men tutorial systems as well as individual assistance through professors are often an effective way to help young academics with their professional entry at university. Particularly at the beginning of a career personal contacts are relevant to receive important information from inside the scientific community. In regards to the relevance of these contacts there are no gender specific differences. Yet women get less intensive support and have to fight harder for recognition of their achievements than their male colleagues (Hebenstreit et al. 2000: 199; Schultz 1991: 124). The regulation of personal support in form of formalised structures is regarded as an effective means to aid those groups of people who are put on a disadvantage. Career talks (“Mitarbeitergespräche”) are one of those means. These talks are supposed to take place on a regular basis and are considered helpful for the career paths. However, assistants often complain that superiors do not take their time to realise them (Buchinger et al. 2002: 81-82).

Besides the positive support of supervisors there are also negative aspects deriving from personal relations. Female as well as male assistants often take in duties of professors like giving lectures. In addition, professors can influence the future academic career of junior staff not only in a positive but also in a negative

sense. Therefore, assistants are dependent on their supervisors and so the individual relationship between them can matter a lot (Hebenstreit et al. 2000: 226). Unfortunately, we do not have any insights regarding gender specific differences on this issue but can assume that men have an advantage as they are over-represented on all levels of the academic profession.

When we have a closer look at the statements of the women in the discussion in regards to their entry at university we can see that personal contacts and a good relationship with superiors can have positive effects (W2 and W3, page 2). Personal support is also important on the further career path. Supervisors, other superiors as well as colleagues are helpful in form of providing information or motivation. Generally, the women think that career talks are a good way to improve the situation at work and to help with a career. But they also explain that those talks are not conducted according to the rules.

“Well, how does it work with these career talks? Well, I never had one. One time they asked for it and as a consequence one was invented.” (W2, page 13)

Because the career talks are not properly performed they do not make any sense to the women.

“Anyway, to invent career talks is absolutely absurd. And to conduct one every five years doesn't make much sense as well. How can I make this up all of a sudden? Yet career talks are supposed to be an accompanying measure, something that happens regularly.” (W4, page 13)

Besides the partly rather informal ways of support the women would wish for more formal systems such as coaching- or mentoring-programs (W3, page 12). It seems as if the women have the impression that obligatory offers of support can be demanded for more easily. Therefore, they would be a more reliable means of assistance for their own career.

Personal contacts are also important for the male scientists of this study. Professors and colleagues are again helpful when they provide information or when they are able to motivate the junior staff with their work. The university assistant had a role model in form of one of his colleagues at the institute and one of his professors helped him a lot with his first publications (M3, page 11). Personal support seems to be of particular importance to the two younger scientists. They are still insecure in their position at university and need the guidance of professors (M1, page 9). In the group discussion the men do not mention if formal programs for support are interesting to them.

When we compare the statements of the female and male participants in the discussions it seems as if the male scientists receive some more support through superiors than their female colleagues. Here, the male scientists assume that the situation depends on the little share of female superiors at the different institutes.

“When I am not involved in the university structures at the beginning and I am looking for someone who can support me and with whom I could work together then there are simply many more men than women. That’s the way it is. And it is possibly easier for a man to approach a man than for a woman to approach a man .. and that makes a difference.” (M3, page 31).

5.4 Reconciliation of work and private sphere

For many female scientists the reconciliation of professional demands and family matters is a difficult issue (Bochow/Joas 1987: 158). Because of this problematic situation many women decide for or against a career. Particularly the younger generation of female scientists makes rather clear decisions. In case that women decide on having children they very often give up their career aspirations. On the basis of statements and the behaviour of female assistants we can assume that they make conscious decisions about the way they organize their future lives (Buchinger et al. 2002: 114). But even if it is possible for the women to reconcile family and job there are problems occurring in their everyday lives. Working mothers live a rather hectic life and are torn between the different duties. All together, the problem of reconciling work and private sphere is still more relevant to women than it is to men (Gerl 1992: 89).¹¹⁵

These results are underlined by the findings of Hebenstreit et al. (2000). Here, more male scientists have children and they are more often in a relationship than their female colleagues. Most of them do not have any problems with the reconciliation of work and family whereas the women have difficulties in coordinating child care, looking after the household and pursuing an academic career. Additionally, female researchers often say that they have a bad

¹¹⁵ In this context it is necessary to mention the common assumption that science can not be reconciled with other areas of life. From this myth, the typical picture of the male scientist developed who has a wife at his side to care for all reproductive chores and who can therefore completely concentrate on his research. This means that female scientists have to compare themselves with this dominant picture and find a way to get acculturated as well as dealing with the double burden of work at university and at home (European Commission 2000: 61; Ingrisich/Lichtenberger-Fenz 1999: 137).

conscience and are afraid to neglect either work or their family or even both (Hebenstreit 2000: 229-234).

The findings also show that female scientist get support from their partners. Anyhow, if the decision has to be made whose career comes first women still have to step back and submit to their partner's career. The traditional division of labour between the sexes yet persists to a great degree. It is true that women and men talk about an even distribution of household chores but in reality men only help with some tasks and women do the main work. Through this, the male scientist has a woman at his side to help him with the daily work whereas women often have to cope with a double burden of paid and unpaid work (Buchinger et al. 2002: 200; Hebenstreit 2000: 230-238). Nevertheless, there are also men who consciously reduce their working hours because they want to spend more time with the family. Some of them even take breaks from their career and take parental leave. In contrast to women though, this behaviour is based on certain conditions. For instance, phases of parental leave are limited to a certain period of time. At the moment, it seems to be impossible for the majority of men to permanently reduce working hours or to stay at home for a long period of time (Buchinger et al. 2002: 202).

Regarding their relations to friends and family female and male assistants often complain that these would suffer under a constant lack of time. This is valid in relation to personal contacts as well as social activities in general. Next to work, there is not enough time left to spend with friends or on leisure activities. The assistants also talk about the problem of demarcation. Since the circle of friends is sometimes identical to the one of colleagues it is difficult to differentiate between working life and private sphere. In this regards there do not seem to be any gender-specific differences (Buchinger et al. 2002: 201).

Of the five women in the discussion two are currently in a relationship (W3 and W4). Both women are married to their partner. One of them also has an adult child. The other three women are all single and without children.¹¹⁶ None of them says that there are problems with reconciling work and private life. This issue is not dealt with thoroughly but one of the married women says that private circumstances are important when it comes to important decisions such as moving to another place. Therefore, she seems to consider her husbands needs (W3, page 6). She is also the one who says that she has to reduce her working hours out of consideration for her partner (W3, page 9).¹¹⁷

¹¹⁶ For the description of the sample see chapter 3.3.

¹¹⁷ For more information on the matter of working hours also see chapter 5.2.2.

All of the male participants of this study are in a relationship. One of them is married and has children. They do not see any problems in reconciling the different areas of their lives. The two younger men have not started a family yet and their female partners are also working. Therefore, it is not surprising that they do not have problems in this regards. In addition they say that they have enough time to follow their individual interests and to keep in touch with friends (M2, page 28). The university assistant who is the only father in the discussion group is aware that his children have an influence on his decisions. Albeit he would like to live abroad he thinks it is wise to wait until his children are a little older (M3, page 23). On the one hand the reconciliation of work and the private sphere is relatively unproblematic for him but on the other hand he took parental leave several times and he works part time at the moment to look after his children to release his wife – who is also an academic - from some domestic chores. To him the flexibility of his job in terms of a rather great freedom regarding the working hours is a big advantage of his profession that makes it possible for him to spend time with his family (M3, page 26).

5.5 The effects of gender-specific socialisation

In the study of Baldauf et al. (1991) the authors analyse the importance of gender-specific socialisation in relation to a career in higher education. They think that the dissimilar socialisation of women and men make them choose different study programs and also influences their career aspirations (according to Bösch 2000: 63). These behavioural patterns are also found in other investigations. Female scientists would act more cautiously and would not express any ambitions. Because of their orientation towards family and a “female” education the women would create their own obstacles. This behaviour would then lead to disadvantages on the career path and a greater dependence on the personal support of professors (Gerl 1992: 40). An additional reason for the more difficult situation of women in higher education is the fact that they have fewer role models within academia (Ingrisch/Lichtenberger-Fenz 1999: 234).

The female scientists of the discussion report several cases where their own socialisation had been a barrier for their career. One woman thinks that she was standing in her own way because of her identification with a female role.

“A vacant position was announced which ... would have been suitable for me. I already had my doctoral degree and my colleague who was a man he did not have it. And I, with my identification as a woman did not stand above it and I stepped back. Well, I left the position to him. The education or the conception of being a woman was a hindrance. I only realised this

when (...) the colleague was standing in my room and I said, okay, then .. I won't do it." (W4, page 3)

Another woman had a similar experience in the occasion of a job announcement. She let her colleague go first because he was married and had children. The male colleague got a full position at the institute whereas she was still employed part time. When she looks back at this situation she thinks that this procedure was fair because her colleague was a competent scientist and had to look after a family (W2, page 4).

As a result of these incidents, the affected women had to cope with negative consequences. The contract assistant had to work at another institution for some time even though she was not able to deal with her topic of interest there. Only when there was another appropriate job announcement at the Faculty of Humanities at the University of Innsbruck she was able to come back and work on the topic she was really interested in (W4, page 3). To let the man go first meant for the other assistant a delay in her career. Because she received a new employment contract at a later point of time she did not get a permanent position. Since only recently she is now employed according to the new regulations of the employment law for university teachers. This means for her that she finds herself in "a scientific dead end road" with only little professional perspectives at the university (W2, page 4).

The male scientists of this study do not talk about their own socialisation in relation to their experiences at work. When asked if they could see any differences for women and men at university they firstly talk about quantitative aspects. Since there are generally more male scientists working at university it would be more difficult for women to find persons who they can relate to and to feel integrated. Then, these aspects are transferred onto the contextual level. Thus, methods and research topics would be dominated by "male thinking" which again would make it harder for women to get integrated into the scientific community (M3, page 31). The individual biography is also seen as an explanation why women may find it harder to pursue a career at university. For women it would be more difficult because of a lack of role models. Therefore, they would have fewer chances for orientation and integration in academia (M3, page 34). In addition, the scientists assume that women and men cope differently with their situations. Women would tend to look for their own mistakes and therefore doubt their personal qualifications. Contrary to this, men would not ask such questions but react offensively to deal with problems (M3, page 33).

When we compare the two discussions it seems as if the male scientists generally have fewer doubts about their own capabilities or at least do not reveal

those. Furthermore, their self confidence often comes to the surface when they talk. Therefore, it is possible that they have fewer doubts about their own competences but it could also be likely that they simply do not show them whereas the women are not that afraid to show some weakness in front of others.

5.6 Requirements of mobility

In a study on mobility among researchers it was found out that female scientists are more mobile than their male colleagues. This result is valid not only for short term stays abroad but also for the permanent move to another city or even another country. Here, the authors ask the question whether women are more motivated to spend some time in another place out of their own interest or if this is necessary for them to be able to advance on the career ladder. If this is the case, then women achieve some extra qualification which a lot of men do not have and maybe do not need to pursue an academic career (Hebenstreit et al. 2000: 254).

Some scientists judge these mobility requirements as negative for their own career. It is often difficult to carry out the crucial flexibility because of private motives or circumstances in the family (Buchinger et al. 2002: 93). For this reason, the situation in the family matters in regards to the mobility behaviour of academics. Consequently, single persons show the highest rate of mobility whereas mothers hardly ever manage to go abroad. Therefore, the family seems to be the most important factor when a decision to move to another place has to be made. Particular the number of children and their age are relevant aspects (Hebenstreit et al. 2000: 79).

When analysing the relationship of mobility and family there are some gender-specific differences. Women generally show a high rate of mobility as long as they are single or in a partnership. But when they become mothers they are the least mobile academics. In contrast to this, it is not significant in regards to the mobility of men if they have children or not. Furthermore, women also accompany their husband when the men go abroad due to professional requirements.¹¹⁸ It is interesting that this is not a reciprocal behaviour because men do not interrupt their career to follow their wives to another location. Therefore, the career patterns of male biographies normally still seem to be continuous whereas the ones of women more often show interruptions (Hebenstreit et al. 2000: 84).

¹¹⁸ This behaviour is called derived mobility (Hebenstreit et al. 2000: 87).

When we have a look at the *curricula vitae* of the scientists in this study we can see that three women had to move to another place or show some other kind of mobility during their career. The woman who is working as external lecturer works at different universities in Austria and hence has to move between different locations rather frequently. She also thinks that she will have to be mobile in the future. This is due to the little career perspectives and to the lack of non-university research institutes in Innsbruck (W5, page 5). W1 was working in another Austrian town as contract assistant for one year before she received the position as university assistant at the University of Innsbruck and W4 was involved in a project at a German university. She is the sole mother in this study and her son was born while she was living in Germany.

As for the men, only one shows some mobility. Parallel to his engagement at the University of Innsbruck he is currently working at a university in South Tyrol, Italy (M1). The university assistant never went abroad but would like to work in an English speaking environment. As mentioned above, he puts this wish on hold because his children are still young and he thinks that it would be wise to wait until they are older (M3, page 23). Interestingly enough, he does not talk at all about the career plans of his wife who is also a researcher.

All together, the female scientists of the discussions are more mobile than their male colleagues. Considering their biographies it seems as if it was a condition to become mobile for the advancement with their careers. From the two parents of this study only the man mentions that his children are a reason why he is not mobile. Since we merely have the information of eight academics we cannot draw any universal conclusions on the mobility requirements and behaviour of female and male scientists though.

5.7 The impact of the individual research interest

Another, maybe less obvious aspect - because it is hardly ever mentioned in investigations - but which yet is an important point that can have some impact on the academic career progression is the individual research focus. As was shown above, a high level of horizontal segregation can be found in the university system.¹¹⁹ In addition, within the single disciplines female and male researchers tend to tackle issues from different angles. They sometimes have different approaches, use different methods and are interested in other facets of a scientific field. Of course not all woman scientists hold identical opinions and

¹¹⁹ For the numerical distribution of women and men over the different disciplines see chapter 2.2 of this paper.

work on similar issues but most of the time they are more aware of gender related matters than their male colleagues. This can be problematic because approaches with a gender-specific or a feminist focus or even feminist activities can have negative impacts on the academic career in a male dominated field. Consequently, this connection matters more for woman scientists than it does for men (Buchinger et al. 2002: 82).

In the discussion one woman reflects this issue. She assumes that the success of application for funding is dependent on the content of project proposals. She thinks that topics in the field of gender and women's studies are currently not in demand and therefore, scientists working in this area are disadvantaged. Since those are her own research interests she sees herself in an arduous situation.

“Women's studies are even more marginalised. And my topic is women's studies, welfare state, globalisation and I have the impression that the obstacles are based on the fact that these are topics that are out and that women's studies are an area that is generally out.” (W5, page 4).

This connection of research interest and academic success does not become evident in the discussion with the male participants. Anyhow, the university assistant thinks that he would have more career perspectives in English speaking countries because of his individual research topic. On the one hand he believes that he could find another attitude among fellow researchers and better intellectual exchange in those countries (M3, page 8). On the other hand he also thinks that there is a bigger variety of position for researchers available (M3, page 18). In any case, from the discussion material we cannot find any suggestions that this man was disadvantaged in his academic career because of his particular research interest.

Even though the male academics do not discuss that their research interest influences their own career progression they think that it plays a role for female academics. They believe that women and men make different experiences at university and relate this to their varying approaches and the use of different methods. The university assistant thinks that this is particularly hard in economic sciences because it is dominated by "male thinking" (M3, page 32). In this respect one academic employee assumes that there may be differences according to discipline (M1, page 32). Therefore, the men are aware that women have to deal with their situation in a male dominated environment and that this can be a disadvantage. Here, it is interesting to notice that the university assistant who is not taking the traditional path of the "typical scientist" is most conscious about these circumstances whereas the two academic employees who

only relatively recently entered university do not seem to have spend much time thinking about this matter yet.

6 Conclusion

To sum up the results of this study it can be stated that there are numerous factors that influence the career of the junior faculty. In this paper it was only possible to analyse those aspects that were dealt with in the discussions. Other aspects such as the impacts of any form of harassment at the work place could not be examined even though we can assume that those mechanisms can work against women's career progression (Bösch 2000: 68). Additionally, the effects of affirmative action measures did not become clear neither in the conversation of the women nor among the male participants albeit they have some influence on the conditions for a career in higher education.¹²⁰

Yet the outcome of this paper shows that various factors influence the work situation and career conditions in different ways. It was found out that the circumstances at the institutes are sometimes problematic. The participants of the group discussions all criticise that there is too little communication and insufficient academic exchange. The members of the junior faculty have to cope with a high amount of working hours and they have a low income in common. Some of the academics still notice positive aspects of this situation. The university assistant sees the advantage of flexible working hours so that he is able to reconcile work and private sphere.

Particularly the present situation at university and the changes in higher education policy represent insecurity for the academics. Women as well as men predominantly consider the current developments as being destructive. Most problematic are the conditions for those who are directly affected by the outcomes. One of the female university assistants often mentions the negative consequences of the changes in the higher education sector and expresses her frustration repeatedly. Also the two academic employees feel insecure because of the changed work situation. This becomes clear when they talk about their relatively little perspectives to remain at the university and potential alternatives. The political debate about efficiency of the higher education system and its consequences for the institutions as well as for the individual persons are generally perceived in a rather negative way. The positive aspects of reforms

¹²⁰ For results on personal attitudes and experiences regarding affirmative action policies in Austria see Buchinger et al. (2002: 230).

and the particular chances in regards to gender equality do not become clear in the group discussions.¹²¹

On the one hand comparatively few gender-specific differences are apparent in the present study. In contrast, the form of employment and the time period of working at the institute seem to be of greater relevance. Hence, the academics that find themselves in relatively unstable employment situations as well as younger staff feel more insecure. The new employment law for university teachers leads to a high degree of insecurity and misconceptions among the junior faculty which is an important finding. An explanation why only few gender-specific differences are revealed in this study may be a result of Buchinger et al. (2002: 111). The authors state that gender-specific factors that are a problem on the career path do not come into force when entering the academic profession but are influential on higher ranks of the hierarchy. Looking at the statistical figures, we see that women are able to enter the university but that they have problems progressing onto the highest positions. Thus, female academics manage to step over the threshold of the university but are held back by the glass ceiling to access top rank positions. Additionally, women as well as men do not comprise homogenous groups. The academics make different experiences and have their individual attitudes. They also have distinct ways of dealing with similar situations. It has been found out that the experiences of women not only vary within a single university but are even different within the same faculty or the same institute (Geenen 1994: 179).

On the other hand it can be said that female academics are still facing a more problematic situation at work than their male colleagues. They get less support and have to prove more often that they are highly qualified when they want to be successful. It also becomes obvious that the men receive more informal assistance and find individual solutions to problems regarding their situation at work. Since the men employ personal strategies they do not change the institutional structures of the department but adapt their own behavior to it. This is an issue that is not much discussed by the women. In this context we can assume that it is easier for men to get support from other members of the faculty and hence develop common strategies of adaption because they are over-represented and dominate the scientific community. Therefore, the micropolitical culture of the university is favourable for men but of little help for women. It is also interesting that most of the women do not have children and that they seem to concentrate primarily on their academic career whereas all men are engaged in a relationship.

¹²¹ For the potential positive effects of the inclusion of gender equality measures and of gender mainstreaming in particular into reforms please refer to Döge (2002: 14).

In conclusion it has to be added that the results of this paper are based on the subjective accounts of the participants. Like in other studies their statements depend on their individual socialisation and personal patterns of coping (Ingrisch/Lichenberger-Fenz 1999: 45). Also, the findings are not representative and are dependent on the choice of method. It is possible that another constellation of the group or another research method could have brought up dissimilar results. Consequently Bochow/Joas (1987: 156) have found very distinctive subjective assessments among the members of the junior faculty.

Through the application of group discussions as a qualitative method the participants of this study had the opportunity to express their opinions and to describe their own experiences. Mayerhofer (1998) used this method and received substantial findings on the acquisition of qualifications and their usability outside the academy. In the present study, this rather open approach led to some new insights into the issue of career conditions at university that were little influenced by the researcher. Thus the importance of recent reforms for female and male academics was particularly stressed. The openness of the method is one of its merits and often leads to fruitful results but it also bears the risk that certain issues of interest are not tackled. For instance, we received little information on reconciliation issues as well as the distribution of research, teaching and administrative tasks. To avoid this risk Hebenstreit et al. (2000) used problem-centered interviews for their research and they received detailed findings on a certain matter which was the focus of their research. Other studies, such as the extensive work of Buchinger et al. (2002), employ several methods in the research process and are therefore able to gain more comprehensive results.

The experiences with the method of group discussions were generally positive. The “discussion stimulus” worked well. All participants were able to add some accounts of their experiences in the academic profession. Later, it was necessary to intervene to ensure that the discussion would continue. The reflexive principles lead to a rather casual conversation where the content of the individual statements was determined by the participants. During the course of the discussions differences between the session with the female and the male academics became apparent. In the discussion with the female participants the individual contributions were distributed fairly evenly and most of the time the women waited until the other had finished before they started to talk. The women did only get completely involved in a discussion at the very end of the meeting. At the beginning, they were giving separate accounts on certain issues. Here, it has to be added that this is partly due to technical problems with the tape recorder. In the discussion with the male participants there was much more

interaction. At some stages the men got engaged in a lively discussion. They all wanted to add information continuously. Among the male scientists it was noticeable that the two academic employees who have less experience at the university were interested in the knowledge of the university assistant.

By means of a qualitatively oriented content analysis it was possible to obtain results from the transcribed material on several factors influencing the situation at work. Some of the categories were developed prior to the interpretation process whereas others had to be altered or added according to the available information during its course. This flexible procedure is an advantage because the researcher determines the outcome of the investigation to a comparatively low degree. The disadvantage of this method is the fact that it does not take the interaction among the participants into account but a discourse analysis was not feasible since only two discussions were conducted. This is due to the lack of personnel and financial resources for the realisation as well as the rather extensive transcription and interpretation process. Therefore, the present study should be seen as a starting point for further qualitative research on this issue. Future studies should gather additional material from more sessions and should use contrast groups from other hierarchical levels to complete the picture.

Finally it has to be said that despite more than a decade of equal opportunity policies and a relatively high standard of affirmative action measures in Austria the situation in the higher education sector is not satisfying. Vertical and horizontal segregation are still prevailing and the effect of equal treatment is rather insignificant. Therefore, it is crucial to monitor and assess equal opportunity measures and to improve or re-design them if necessary. Besides measures to facilitate the reconciliation of work and private life for women *and* men as well as specific support for the advancement of female academics it is indispensable to continue with the process of sensitization. Without an awareness of the necessity to reach for a high degree of equality it is difficult if not even impossible to push through the implementation of appropriate measures.¹²² Here, legally binding regulations as well as financial incentives are the most effective means to encourage the introduction at the individual institutions (Roth 2002: 178). The European Union has set good examples in this context. Now it is necessary that the Union continues on the same path and that the single member states effectively put the legal guidelines into action. That this is still required was proven by the results of the various studies of the Research Training Network.

¹²² In this respect it is also crucial to examine the role of men in the process of gender equality. So far there are hardly any studies that are concerned with this issue. For an example in public administration in Germany see Höyng/Puchert (2000).

APPENDIX**I Abbreviations**

BMBWK: (German: Bundesministerium für Bildung, Wissenschaft und Kultur), Federal Ministry of Education, Science and Culture

BMWV: (German: Bundesministerium für Wissenschaft und Verkehr), Federal Ministry of Education and Traffic

ETAN: European Technology Assessment Network on Women and Science

ISCED: International Standard Classification of Education

M1-3: Abbreviation for male assistants taking part in the group discussion, numbers referring to individual participant

UOG: (German: Bundesgesetz über die Organisation der Universitäten), University Organisation Act

W1-5: Abbreviation for female assistants taking part in the group discussion, numbers referring to individual participant

II Glossary¹²³

- Academic employee:** (German: Wissenschaftlicher Mitarbeiter), Academic in training, working on a doctoral thesis.
- Contract assistant:** (German: VertragsassistentIn), Academic who has been contracted to assist in teaching and research.
- Contract staff:** (German: Vertragsangestellte), Here: contract assistants and lecturers working in higher education.
- Dissertation:** (German: Dissertation), Doctoral thesis.
- Employment law for university teachers:** (German: Universitätslehrer-Dienstrecht), Law regulating the employment conditions of staff involved in teaching and research at Austrian universities.
- Habilitation:** (German: Habilitation), The right to teach as a professor in a circumscribed field or discipline. To reach this qualification it is necessary to write a habilitation thesis after the doctorate which is the prerequisite for an appointment as a professor.
- Institute:** (German: Institut), Organisation unit for teaching and research at a university.
- Student assistant:** (German: StudienassistentIn), students who participates in teaching.
- University assistant:** (German: UniversitätsassistentIn), Academic responsible for assistance in teaching, research, and art performance.
- University Organisation Act:** (German: Universitäts-Organisationsgesetz), Legal framework of the organisation of the Austrian universities.

¹²³ The glossary is based on the explications of the dictionary of the Bundesministerium für Wissenschaft und Verkehr (1999) as well as Kucsko-Stadlmayer (2001).

III Guidelines for the group discussions

Introduction:

- Introduction of the moderators and the Research Training Network

Aims of group discussion:

- Findings on chances and obstacles of an academic career at Austrian universities
- Own experiences of participants of the group discussion
- Recording with audiotape
- Additional information through curricula vitae
- Discretion regarding the personal information

Introduction of participants:

- Please introduce yourself and explain your current work situation as well as the path leading to your position.
- Since when are you working as an academic?
- What are the main topics of your current work?

Main question:

- What are your experiences regarding your academic career? To what degree are institutional and personal factors important?

Further questions:

- Which tasks do you have to fulfil in your daily work? (Distribution of teaching and research, administration, work in committees etc.)
- What are your positive/negative experiences?
- What do you think of networking and mentoring/coaching in regards to your career?
- How does your work contract (temporary/permanent) influence your career?
- How do you see the hierarchical structures in your institute and how do they influence your career?
- What kind of access to scientific resources do you have and how does this influence your work?
- Please explain the connection between work and private sphere.
- Do you think that your own experiences are typical for those of assistants at Austrian universities in general and if yes, why?
- Do you think your experiences differ from those of assistants at Austrian research institutes? If yes, how?
- What are your ideas and perspectives for your further academic career?

IV Tables

Table 5: Relative share of women and men at Austrian universities^o, 2001

	Women	Men
students	50,2	49,8
PhD graduates	35,8	64,2
contract staff*	41,8	58,2
university assistants	31,4	68,6
university lecturers	14,9	85,1
full professors	6,8	93,2

Source: own elaborations based on BMBWK (2002c:104).

^o Not including universities of arts

* Contract staff = contract assistants and lecturers

Table 6: Relative share of women and men at the University of Innsbruck, 2001

	Women	Men
students	49,6	50,4
PhD graduates	39,1	60,9
contract staff*	35,8	64,2
university assistants	30,5	69,5
university lecturers	10,7	89,3
full professors	9,8	90,2

Source: BMBWK (2002c:103)

* Contract staff = contract assistants and lecturers

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INTERNET-LINKS:**BMBWK on the reform of the employment law for university teachers:**

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- *Research Phase 3: Survey* -
- *Research Phase 4: Case Studies* -

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