MONITOR WOMEN PROFESSORS

2009

The state of affairs with respect to women in university positions and academic decision-making bodies

This Monitor is an initiative of the Stichting de Beauvoir (the De Beauvoir Foundation) and is a joint product of the Stichting de Beauvoir, the Association of Dutch Universities (VSNU), the Dutch Network of Women Professors (LNVH) and the Social Fund for the Knowledge Sector (SoFoKleS).

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FOREWORD

Putting deeds to words

The number of women in academic positions in the Netherlands is increasing. On average, the percentage of women professors has been increasing at the rate of 0.5% per year since 2003. At the end of 2008, this percentage amounted to 11.7%, excluding women professors employed at university medical centres (approx. 12.9%). With these figures, it is apparent that the Netherlands lags far behind most other European countries. This under-representation of women in top academic positions is a recurrent point of discussion.
Recently, the Dutch Network of Women Professors (LNVH) published a paper entitled: "Emancipatie-beleid voor universiteiten" (Equal Opportunities Policy for Universities' with an overview of measures that are applied by universities to boost the number of women in academic positions). This paper makes it clear that improving the position of women in the academic world at most universities is an issue to be taken seriously.
In 2009 the majority of universities and university medical centres signed the *Talent to the Top* Charter. By signing this Charter, the Boards of Governors of these institutions have agreed to formulate quantitative goals and policies in the following three to five years for the recruitment and promotion of women and to compile an annual report on the extent to which the formulated goals are achieved.
Marieke van den Brink (Radboud University of Nijmegen) conducted a study on professorial appointments in practice in her doctoral thesis 'Behind the Scenes of Science', in which she shows that, although most universities maintain an explicit policy to promote the number of female professorial appointments, people are not always aware of this policy and it is often ignored.

To put deeds to words and to actually increase the number of women in academic positions, constant personal commitment is required from the Boards of Governors of universities and university medical centres and other academic bodies. This requires concrete actions such as formulating ambitions, making agreements, monitoring performance and intervention, if necessary. In addition, it is also essential to broaden one's understanding of the gender aspects in the working climate and in the practice of attracting, interesting and retaining female employees. The task we are faced with is in the best interests of the no fewer than 42% of PhD students that are female, as well of the universities themselves in their need to attract talented employees. In 2009, too much female talent is still being wasted.
The Dutch Network of Women Professors meets once a year with the Boards of Governors of all Dutch universities and important academic institutions to discuss the effects of their equal opportunities policies and sounds the alarm if previously made agreements are not honoured. In the past five years, the EQUAL project *Participation as a Priority* has published posters colourfully voicing the discrepancies between men and women in academic positions, in government or on executive boards.
Also, the 'Monitor Women Professors' has now been published for the third time. This is the first time that the Monitor also provides insight into the gender distribution at university medical centres, on Boards of Governors and Supervisory Boards, in executive academic positions and on the Boards of the Royal Netherlands Academy of Arts and Sciences (KNAW) and the Netherlands Organisation for Scientific Research (NWO). These bodies ought to comprise a substantially larger share of women than is currently the case in order to ensure that our goal of 'more women in top academic positions' is achieved.

We hope that this Monitor will be able to serve as an aid and reference work for universities and university medical centres and all other stakeholders.

JORIS VAN BERGEN,
Chairman of the Stichting de Beauvoir - september 2009

INTRODUCTION AND SUMMARY

The Monitor Women Professors 2009 examines the current state of affairs regarding the percentage of women holding positions in various academic job categories, academic fields and decision-making bodies.

The good news is that the percentage of women professors has been increasing every year. Currently, 11.7% of all professors at Dutch universities are women, excluding women professors employed at university medical centres (approx. 12.9%). This development applies to almost all universities and academic fields, regardless of their substantial differences. The bad news is that the annual increase in the percentage of women professors is very limited - only 0.5% per year on average. This is not sufficient by far to achieve goals set previously. The EU's Lisbon Agreement states that 25% of all professors should be female by 2010. Currently, the European average stands at 19%. In the Netherlands, this percentage is much lower. If this percentage continues to rise at the current pace, the Netherlands will not be able to comply with the Lisbon standard until 2030. The Ministry of Education, Culture and Science (OCW) adjusted its goal in 2005 to 15% women professors by 2010. At the current pace, we will not reach this until 2014. If we wish to achieve this 2010 goal of 15%, 96 women professors will have to be appointed in the course of both 2009 and 2010, in addition to the number of women currently holding the title of full professor. That is 66 more than the number appointed on average - taking the growth percentage into account - over the past few years (15 per year).

Between 2002 and 2007, the average increase in the percentage of women professors in Europe was 3 percent. In the Netherlands this percentage is lower at 2.8%. It is notable that almost all countries with a percentage of women professors below 10% in 2002 have experienced more rapid growth than the Netherlands in the past five years. If the Netherlands wishes to improve its position in Europe, the percentage of women professors will have to increase much faster than the European average of 3%. Policies will need to be extended to achieve this objective. According to our data, the percentage of women professors at the universities of Maastricht, Utrecht and Groningen, the universities of technology of Delft and Twente and the VU University Amsterdam has grown more rapidly than at other universities. It can be assumed that this success resulted in part from the policy implemented by these six universities in the past five years. Indepth examination of their policy may prove useful to other universities for insight into the available measures to boost the percentage of women professors.

Not only is the number of women professors rising, the percentage of women assistant professors and associate professors has been increasing as well. The number of women academics has grown in all job categories, both absolute and as a percentage, in comparison to their male counterparts. This applies also to those jobs where the scope of the total formation has been shrinking. This represents a shift in the gender distribution at universities.
Despite an increase in the number of women on all fronts in the academic world, the ratio of men to women remains disproportionate, especially in the highest positions. Although more women than men obtain a university degree these days, their numbers are noticeably shrinking at each successive rung of the career ladder. The bottleneck generally occurs at the step from assistant professor to associate professor. A few years ago this was different: at that point in time, the step from PhD student to assistant professor was the most difficult. Where men appear to have a 'glass elevator' at their disposal - their percentage only increases in as they rise through the ranks - the 'glass ceiling' for women is still omnipresent, even though it appears to be showing some cracks.

The decrease in participation of women is not consistent in all academic fields. In fields with a relatively large number of women students such as *Language & Culture, Social Sciences, Law, Agriculture* and *Medicine*, the number exceeds that of fields with relatively small numbers of women students such as *Technology, Science* and *Economics*. A possible explanation for the limited advancement of women can be found in the fact that women - especially in the capacity of assistant professor and associate professor- work part-time more often than men. More research is required to gain greater insight into this.

It has also come forward in this Monitor that women, more often than men, fill the lower salary grades of all job categories. The differences in remuneration are not small. Even if the older age categories (which include more men than women) are not taken into consideration, the difference in salary grades remains notable.

In conclusion, this Monitor will also examine the number of women in university executive and management positions. Participation of women in university decision-making bodies remains very limited. The majority by far of the Board of Governors of universities is comprised of men; only three of the forty-one board members are women. The same applies to the Boards of Governors of university medical centres: only two out of thirty board members are women. Women are better represented in Supervisory Boards of universities; women comprise almost one third of members. This is due to a statutory provision which stipulates that there must be at least one woman on all university Supervisory Boards. Furthermore, while it is remarkable that there are many female directors of education (24%), only a few women attain the position of director of studies (6.3%) or dean (5.2%).
The percentage of women department heads at university medical centres reflects the percentage of women professors at these centres, i.e., 10%. What is remarkable is that some university medical centres have more women department heads than you would expect, based on the percentage of women medical professors, while others have fewer.
The representation of women on NWO Division Boards is reasonable, even if there are major differences in the academic fields presented. Women are also well represented in the executive organs of the Royal Netherlands Academy of Arts and Sciences (KNAW), but the number of women Academy Professors is still quite limited. It is encouraging that female representation in the Young Academy of KNAW is higher.

The number of women leaving the academic profession still constitutes an enormous waste of talent - talent that is a dire necessity in our current knowledge economy. This is an unnecessary waste. The growth in the number of full professors that some universities, including universities of technology, have managed to achieve - probably through the implementation of an effective policy - shows that there are more remedies that can be applied to this problem. An example of one such remedy is also the NWO Aspasia programme which caused the percentage of women associate professors to rise substantially in 1999.
In the next five years, the prospects for an increase in the percentage ¬of women full professors will be better than ever. Professors from the Baby Boom generation will soon be conferred emeritus status. This concerns 625 full professors, of which 95% are male. According to our calculations, there are sufficient women associate professors to succeed a substantial number of these men.

If there is anything that this Monitor clarifies, it is that current policy is insufficient to promote the advancement of women in academic positions and in academic management positions. Formulating ambitious goals about the number of women full professors is a good start, but if we mean to achieve this goal we will need concrete agreements and supporting policies. We hope that this Monitor will provide the necessary insight to alleviate the most urgent bottlenecks and that it will specify those areas that require additional attention. This will allow a more effective management of the issue at hand so that, in three years' time, we will finally be able to say goodbye to our position in the lower echelons of Europe.

Information about the data in this Monitor

Almost all figures were derived from the Higher Education Personnel Information (WOPI) file of the VSNU or were provided by university medical centres. As the data from these two sources cannot easily be compared, the data from university medical centres is in this Monitor discussed separately. Professors by special appointment have not been included in this study because the data pertaining to these chairs is not registered in a uniform manner. Now that virtually all universities have signed the Talent to the Top Charter, we hope that this data will indeed be collected in the following years in order to present this in the next Monitor.

1 - WOMEN IN ACADEMIC POSITIONS IN THE NETHERLANDS

Underrepresentation of women in academic positions in the Netherlands is still enormous. Table 1.1 and Graph 1.1 display the percentage of men and women. In 2008 the number of men and women studying at a university was practically the same. The percentage of women graduates is even 6% higher than that of men who leave university with a degree. After this, the number of women decreases at every rung of the academic career ladder: from almost 42% of PhD students, down to 31% of assistant professors and 18% of associate professors, only 12% attain the position of full professor. These figures comprise all academic fields, except for *Medicine*.[2]

Graph 1.1 displays data from Table 1.1 in what is commonly referred to as a scissors diagram.[4] A scissors diagram is often used to present gender distribution in international publications.

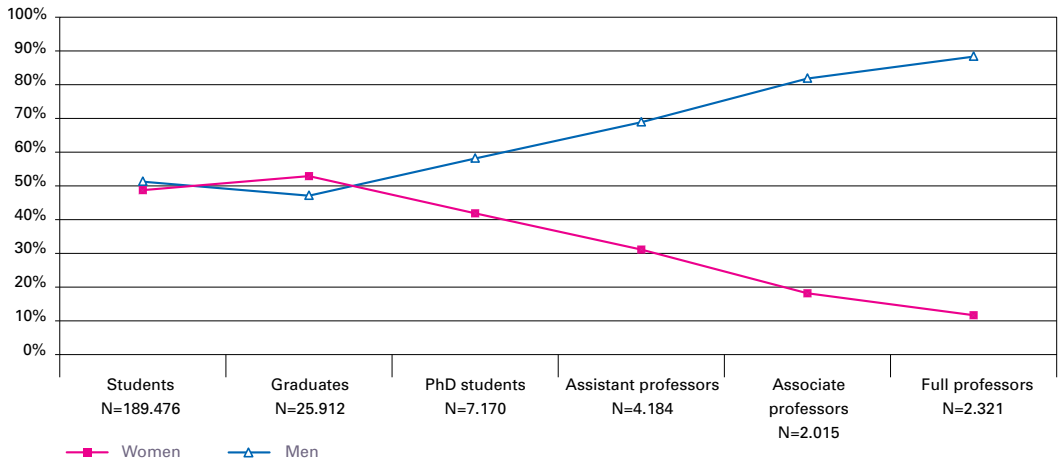
TABLE 1.1

Gender distribution for enrolled students, PhD graduates, assistant professors, associate professors and full professors at the end of 2008.[1, 3]

	Men	Women
Students	51,3%	48,7%
Graduates	47,1%	52,9%
PhD students	58,1%	41,9%
Assistant professors	68,9%	31,1%
Associate professors	81,8%	18,2%
Full professors	88,3%	11,7%

GRAPH 1.1

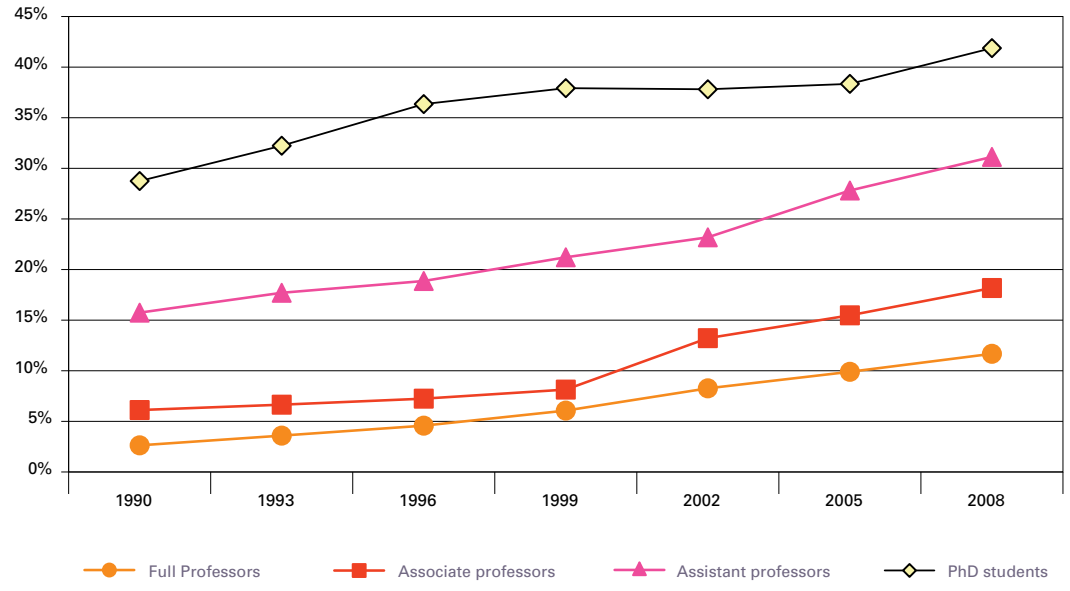
Gender distribution of enrolled students, graduates, PhD students, assistant professors, associate professors and full professors at the end of 2008.[1, 3]



In 2008 the percentage of women holding various academic positions may still have been low, but it is encouraging to perceive an upwards trend: to all job categories, the percentage of women was higher in 2008 than ever before. Graph 1.2 shows the development between 1990 and 2008. Regarding assistant professors we noted a 15% increase in 1990 up to a little over 30% in 2008. Where associate professors are concerned, a clear acceleration can be distinguished starting in 1999, whilst development in previous years was hardly ascertainable. The implementation of the NWO Aspasia programme might serve to explain this. Women whose research proposals were funded by this programme were promoted to associate professor. Evaluation of this programme showed that the increase in the number of women associate professors can be almost entirely attributed to the programme and the resulting generous appointment of women by universities (Visser et al, 2003).[5]

GRAPH 1.2

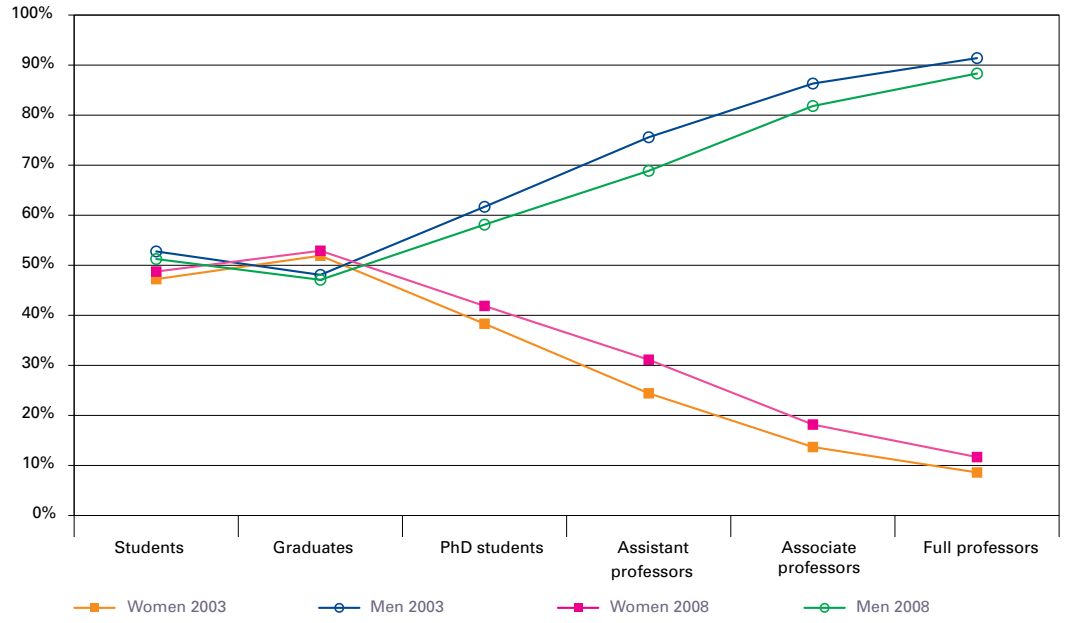
Development in the percentage of women according to job category between 1990 and 2008.[1]



Due to the increase of the percentage of women in all job categories in 2008, the difference in percentage of males and females has diminished slightly in comparison to previous years.. The scissors diagram in Graph 1.3 illustrates the difference between 2003 and 2008. Despite this upwards trend, there are still major differences in the percentage of men and women holding the position of assistant professor, associate professor and full professor.

GRAPH 1.3

Gender distribution of enrolled students, graduates, PhD students, assistant professors, associate professors and full professors at the end of 2003 and 2008.[1,3]

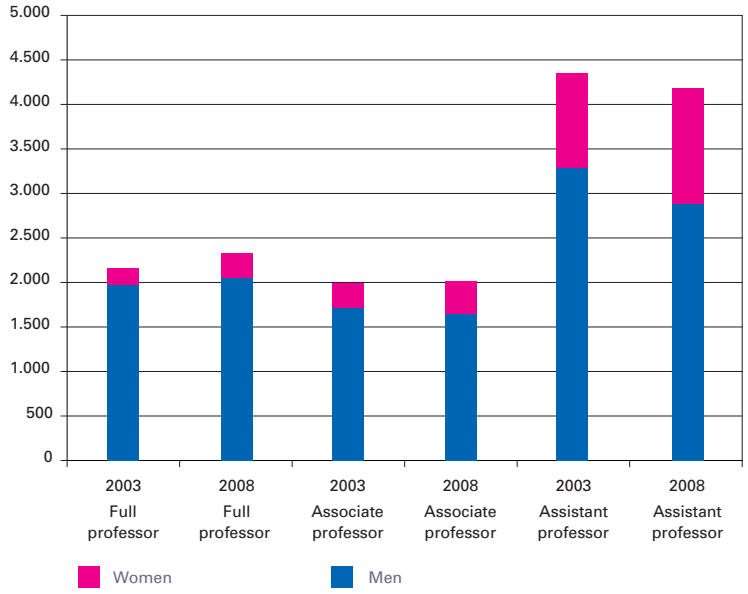


Graph 1.4 shows that the number of full professors (expressed in FTE) increased between 2003 and 2008. Both the number of men as well as the number of women professors has grown, but both the absolute and relative growth of the number of women professors is greater than that of men professors. The number of associate professors (in FTE) has diminished slightly in the past few years. Despite this, the number of *women* associate professors has grown. The entire community of assistant professors has diminished. This shrinkage was not at the expense of women; their numbers continued to grow here as well. The fact that the number of female academics continues to grow in those areas that are affected by a general shrinkage means that there is a shift in gender distribution in the academic world.

Graph 1.4 provides insight into the relationship between the various job categories. The number of FTE allocated to assistant professors is more than twice the number of FTE allocated to associate professors. The competition for the position of associate professor is therefore fierce. The number of FTE allocated to full professors is slightly higher than that of associate professors.

GRAPH 1.4

Professional scope as regards the positions of assistant professor, associate professor and full professor at the end of 2003 and 2008.[1]



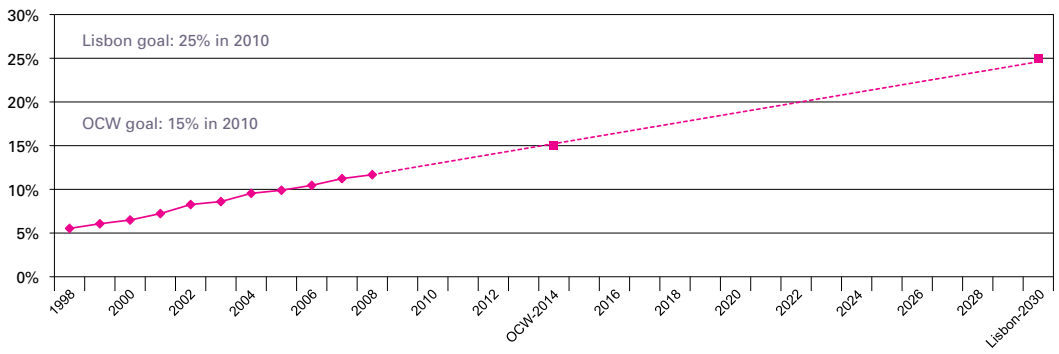
2 - TARGETS FOR 2010

The percentage of women in high academic positions is not only low in the Netherlands, but in other European countries as well. Because the European Union (EU) wishes to waste as little talent as possible, it was established in the Lisbon Agreement that the percentage of women professors in 2010 in all European countries, the Netherlands included, should be 25%.[6] In the Netherlands, the Ministry of Education, Culture and Science (OCW) has determined its target percentage that is substantially lower than that set down in the Lisbon Agreement: 15% women full professors in 2010.[4]
In the previous chapter, we noted that the percentage of women professors in all academic fields combined, with the exception of *Medicine*, was 11.7% in 2008.[2] We will see in Chapter 4 that the percentage of women professors at university medical centres, representing the majority of academics in the field of *Medicine*, is not much higher: 12.9%. Even if the percentage of women professors in the field of *Medicine* is included in these figures, it is clear that neither the Lisbon Goal, nor that of the OCW, will be achieved.

Graph 2.1 shows the increase in the number of women professors between 1998 and 2008 - with the exclusion of the field of *Medicine* - with an extrapolation based on the growth between 2002 and 2008 and up to the point where the goals set by the Lisbon Agreement are to be achieved. The percentage of women professors increases at an average annual rate of slightly over 0.5%, which amounts to approximately 15 women professors a year (in FTE). If the growth in the number of women professors continues to progress as in the past six years, the OCW goal of 15% will only be achieved in 2014 and the Lisbon goal of 25% will not be achieved until 2030. That is twenty years later than the target year of 2010. If the Netherlands aims to comply at all with the set goals, more women professors will have to be appointed per year than is now the case. To achieve the goal of 15% women professors as set by the ministry of OCW at the end of 2010, 96 (FTE) women professors must be appointed in 2009 and 2010 together, on top of the number of women already holding the title of full professor. This is 66 more than the number now appointed, if the growth rate of the past few years (15 FTE per year) remains unchanged.

GRAPH 2.1

Percentage of women professors between 1998 and 2008 with an extrapolation of the growth between 2002 and 2008 up to the OCW goal (15%) and the Lisbon goal (25%).[1]



3 - WOMEN PROFESSORS IN THE NETHERLANDS

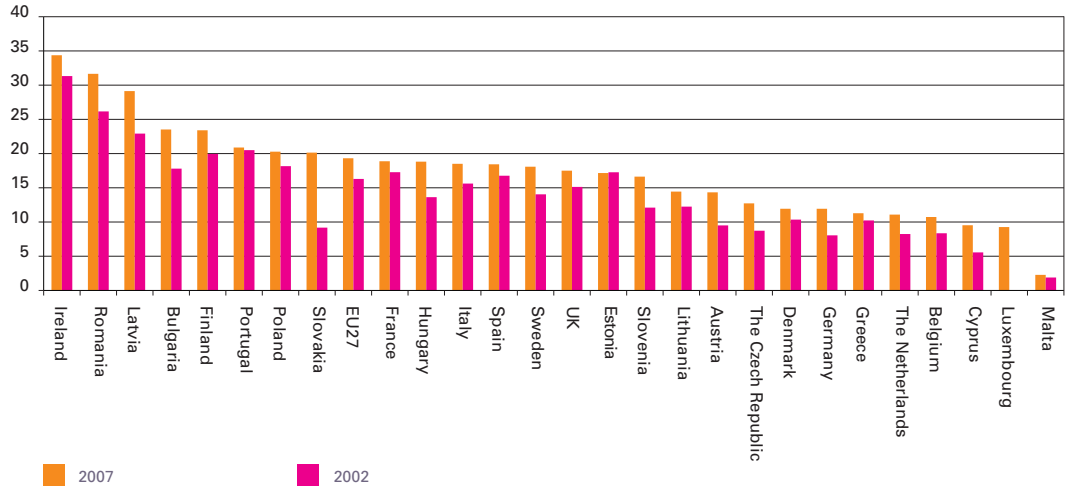
IN A EUROPEAN PERSPECTIVE

Although the percentage of women professors in the Netherlands has increased, the Netherlands is still far behind other European countries. Graph 3.1 shows that the percentage of women professors in 2007 in the EU (EU-27) averaged 19%, while in the Netherlands, women professors at university medical centres excluded, the figure was only 11.1% at the end of 2007. This places the Netherlands in 23rd place on the European ladder - among the bottom rungs. The percentage is lower only in Malta, Luxemburg, Cyprus and Belgium. Germany, which scored lower than the Netherlands in 2002, has outpaced us in the meantime.

Between 2002 and 2007, the average increase in the percentage of women professors in Europe was 3 per cent. In the Netherlands this percentage is slightly lower at 2.8%. Remarkable is that all countries with a percentage of women professors below 10% in 2002 have grown faster in this respect than the Netherlands in the past five years. This does not apply only to Belgium, Cyprus and Malta.
If the Netherlands wishes to improve its position in Europe, the percentage of women professors will have to increase much faster than the European average of 3%.

GRAPH 3.1

Percentage of women professors (Grade A Academic Positions) in EU27 countries in 2007 and 2002.[8]



4 - GENDER DISTRIBUTION AT DUTCH UNIVERSITIES

Table 4.1 shows the percentage of men and women professors per university. It is clear that the percentage of women professors varies strongly per university. The Radboud University of Nijmegen, the University of Amsterdam and the Leiden University have - just as was stated in the 2006 Monitor - the highest percentage of women professors. The Radboud University of Nijmegen and the University of Amsterdam have surpassed the Leiden University in this respect in the past three years. The universities of technology have fewer women professors than most other universities. This can be attributed to the fact that fewer women graduate in the fields of *Science* and *Technology*. It must be also noted that there is a remarkable discrepancy in the percentage of women professors at these universities. For instance, the Delft University of Technology has a much higher percentage of women professors than the Eindhoven University of Technology.

TABLE 4.1

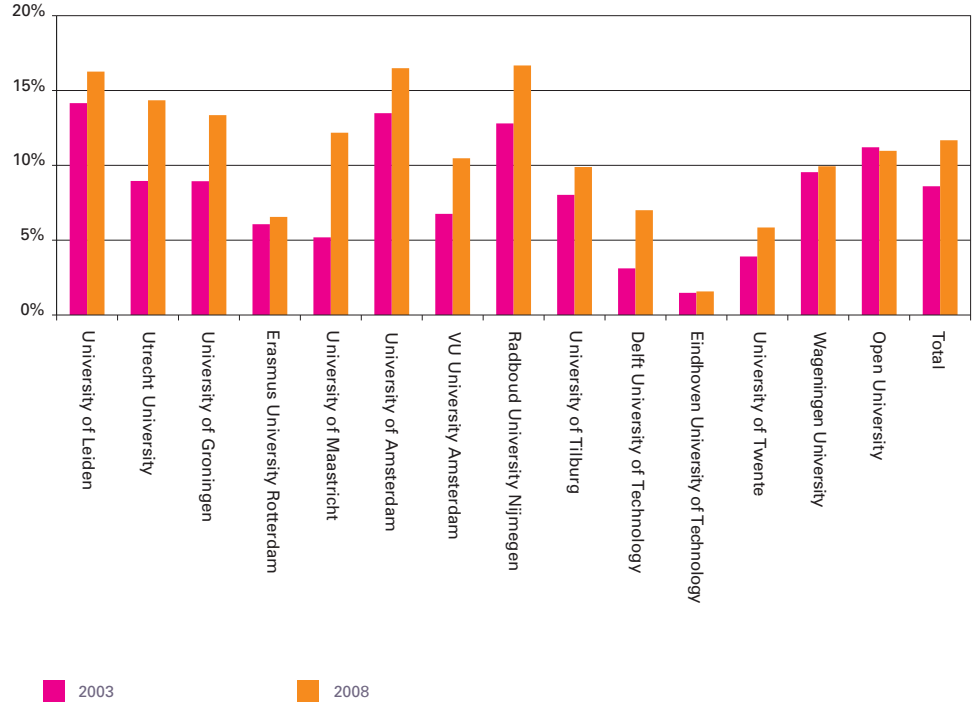
Percentage of women professors per university at the end of 2008.[1, 9]

	Total	Men	Women	Percentage of women
University of Leiden	211	177	34	16,3%
Utrecht University	244	209	35	14,3%
University of Groningen	222	93	30	13,4%
Erasmus University Rotterdam	109	102	7	6,6%
University of Maastricht	82	72	10	12,2%
University of Amsterdam	270	225	44	16,5%
VU University Amsterdam	210	188	22	10,5%
Radboud University Nijmegen	201	168	34	16,7%
University of Tilburg	175	158	17	9,9%
Delft University of Technology	216	201	15	7,0%
Eindhoven University of Technology	127	125	2	1,6%
University of Twente	125	118	7	5,8%
Wageningen University	99	89	10	9,9%
Open University	31	28	3	11,0%
Total	2.321	2.050	271	11,7%

Graph 4.1 and Table 4.2 show the percentage of women professors per university at the end of 2003 and at the end of 2008. If we compare the 2003 percentages to those of 2008, we will note that the percentage of women professors has increased at almost all universities. The percentage has dropped only at the Open University. As the Open University only has a limited number of professors, any minor change in numbers will be reflected as a major difference in percentage.

GRAPH 4.1

Percentage of women professors per university at the end of 2003 and 2008.[1]



Utrecht (5.4%) and Groningen (4.4%). In the last column of Table 4.2, the change in percentage was calculated according to another method - namely by means of an index in which the growth in percentage of women professors is related to the percentage of women professors in 2003.[10] An index of 100 means that there was no change in percentage between 2003 and 2008 and an index of 200 means that the percentage of women professors in 2008 doubled in comparison to the percentage in 2003. It is also clear from this index that the Delft University of Technology (index=225), the Twente University of Technology (index=150) and the VU University Amsterdam (index=155) have surpassed the other universities. It can be assumed that this success resulted in part from the policy pursued by these universities in the past five years in promoting the appointment of women professors. Further study of their policy may prove useful in gaining insight into the measures that can be taken to help boost the percentage of women professors.

TABLE 4.2

Percentage of women professors at the end of 2003 and 2008, change in percentage 2008 in comparison to 2003 and index.[1, 10]

	2003	2008	Rise in percentage 2003-2008	Index 2003=100
University of Leiden	14,2%	16,3%	2,1%	115
Utrecht University	9,0%	14,3%	5,4%	160
University of Groningen	8,9%	13,4%	4,4%	149
Erasmus University Rotterdam	6,1%	6,6%	0,5%	108
University of Maastricht	5,2%	12,2%	7,0%	235
University of Amsterdam	13,5%	16,5%	3,0%	122
VU University Amsterdam	6,8%	10,5%	3,7%	155
Radboud University Nijmegen	12,8%	16,7%	3,9%	130
University of Tilburg	8,0%	9,9%	1,9%	123
Delft University of Technology	3,1%	7,0%	3,9%	225
Eindhoven University of Technology	1,5%	1,6%	0,1%	106
University of Twente	3,9%	5,8%	1,9%	150
Wageningen University	9,5%	9,9%	0,4%	104
Open University	11,2%	11,0%	-0,2%	98
Total	8,6%	11,7%	3,1%	136

University medical centres represent the majority of academics in the field of *Medicine*.[2] They supplied data for use in this Monitor about the number and percentage of professors at university medical centres. According to the university medical centres, the data representing the number of persons is more reliable than data representing FTE. For this reason, the tables with data from the university medical centres are presented in numbers of persons. Table 4.3 shows the percentage of women professors at the various university medical centres. The Groningen University Medical Centre (15.8%) and the Leiden University Medical Centre (15.4%) achieved a relatively high score. Unfortunately, we have no data on the percentage of women professors at university medical centres in previous years, making it impossible to ascertain any development in this percentage in the past few years.

TABLE 4.3

Percentage of women professors at university medical centres. Benchmark dates: 31 December 2008 - July 2009.[2]

	Men	Women	Total	Percentage of women
Leiden University Medical Centre	126	23	149	15,4%
Utrecht University Medical Centre	112	18	130	13,8%
Groningen University Medical Centre	149	28	177	15,8%
Erasmus Medical Centre	153	21	174	12,1%
Academic Hospital Maastricht	127	13	140	9,3%
Academic Medical Centre (UvA)	133	21	154	13,6%
VU Medical Centre	122	18	140	12,9%
St Radboud University Medical Centre	122	12	134	9,0%
Total	1.044	154	1198	12,9%

5 - GENDER DISTRIBUTION PER ACADEMIC FIELD

There have always been major differences in the Netherlands in the number and percentage of women in the different academic fields.[11] The percentage of women in the field of *Language & Culture* is much higher than in *Science, Technology* and *Economics*. The differences in these academic fields regarding the percentage of women are already reflected at the student level. Table 5.1 represents the percentage of women students per academic field. The percentage of women students is much lower in the academic fields of *Science, Technology* and *Economics* than in other academic fields. This professional segregation is reflected in the percentage of women professors in the different academic fields. Table 5.2 shows the percentage of women professors per academic field in 2003 and 2008. Comparison of Tables 5.1 and 5.2 shows that in those academic fields where the percentage of women students is low, the percentage of women professors is equally low.

TABLE 5.1

Number and percentage of women students in the various academic fields as at 1 October 2008.[3]

	Number of men	Number of women	Percentage of women
Agriculture	2.375	2.768	53,8%
Science	10.804	6.048	35,9%
Technology	22.703	4.985	18,0%
Economics	23.111	10.785	31,8%
Law	11.275	15.782	58,3%
Social Sciences	14.187	31.018	68,6%
Language & Culture	12.166	20.366	62,6%

TABLE 5.2

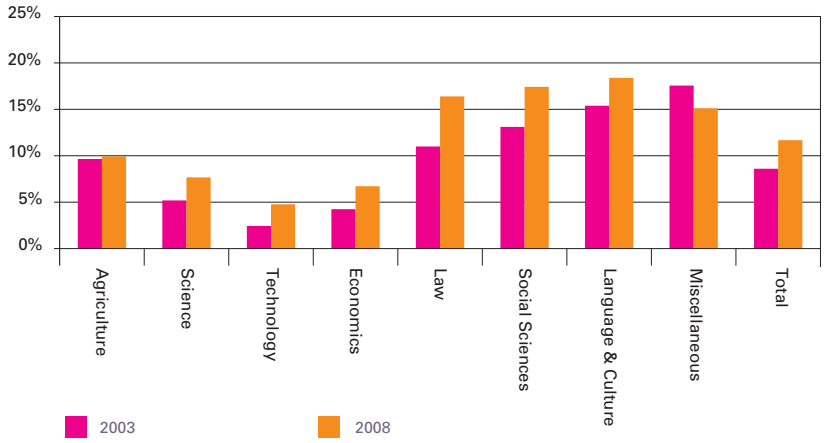
Percentage of women professors by academic field and index at the end of 2003 and 2008.[1, 10]

	Total 2003	Percentage of women 2003	Total 2008	Percentage of women 2008	Index[10] 2003 = 100
Agriculture	104	9,7%	99	9,9%	103
Science	432	5,2%	417	7,7%	148
Technology	395	2,4%	422	4,8%	196
Economics	251	4,2%	298	6,7%	158
Law	232	11,0%	256	16,4%	149
Social Sciences	366	13,1%	382	17,4%	133
Language & Culture	348	15,4%	398	18,4%	119
Miscellaneous[12]	36	17,6%	48	15,1%	86
Total	2.165	8,6%	2.321	11,7%	136

The good news is that a comparison of the percentages of women professors in 2003 and 2008 shows an increase in practically all academic fields. Expressed in percentages, the increase in the percentage of women professors is highest in the fields of *Law* and *Social Sciences*. The last column of Table 5.2 shows the change between 2003 and 2008 by means of an index. An index of 200 means that the percentage of women professors in 2008 has doubled in comparison to the percentage in 2003 and an index of 100 means that there is no change in percentage between 2003 and 2008. We noted the highest growth in the field of *Technology*: The percentage of women professors doubled in this field (index=196). In the fields of *Economics*, *Science* and *Law*, the percentage of women professors was raised by 50%. With respect to the rise in the academic fields of *Economics* and *Science*, we must realise that a limited growth in the number of women professors appears as a large increase in percentage since the number of women professors in these fields is so small.

GRAPH 5.1

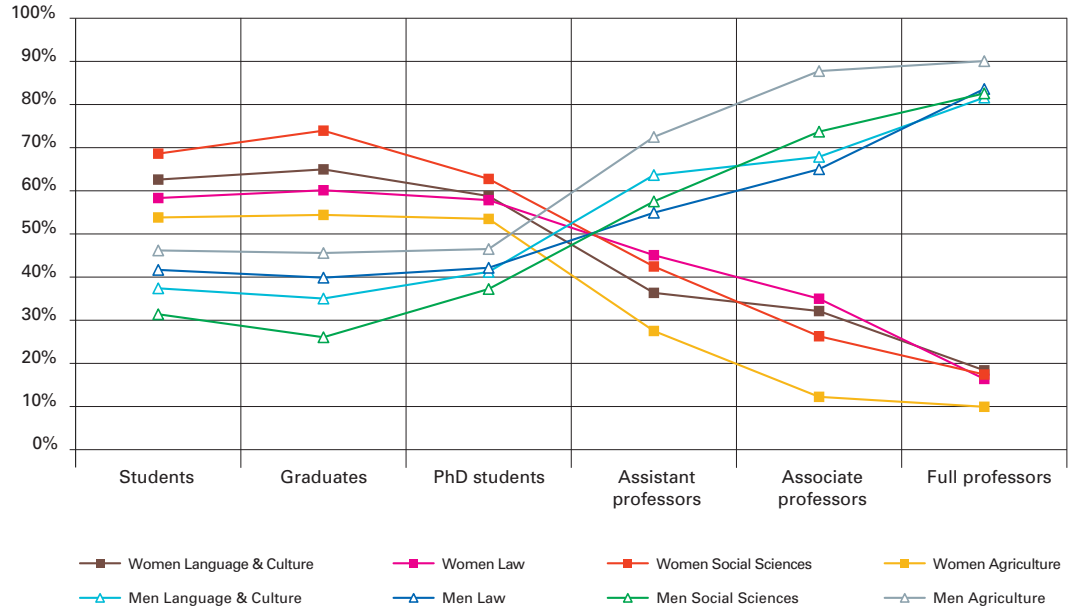
Percentage of women professors by academic field at the end of 2003 and 2008. [1]



Taking into consideration the percentage of women professors in the different academic fields in relation to the percentage of women students, PhD students and women in other job categories, we can see two groups emerge.
In the fields of *Language & Culture, Social Sciences, Law* and *Agriculture*, the majority of students and PhD students are women, but the percentage of women drops notably at the point of transition from PhD student to assistant professor. The scissors diagram in Graph 5.2 illustrates the increasingly disproportionate gender distribution in these academic fields.

GRAPH 5.2

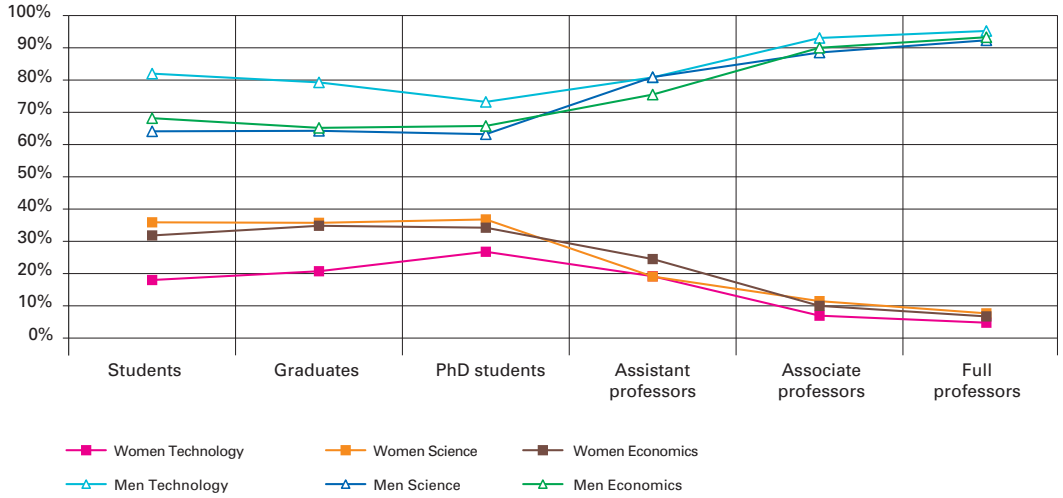
Percentage of women per position in academic fields with a relatively high proportion of women: Language & Culture, Law, Social Sciences, and Agriculture at the end of 2008.[1, 3]



More men than women are students and PhD students in the academic fields of *Technology, Science* and *Economics* (Graph 5.3). The disproportionate gender distribution is relatively smaller in these fields than in those displayed in Graph 5.2. In the field of *Technology* we note an increase in the percentage of women PhD students in relation to the percentage of women students.

GRAPH 5.3

Percentage of women per position in academic fields with a relatively low proportion of women: Technology, Science and Economics at the end of 2008.[1, 3]



For several years, more women than men have been studying in the academic field of *Medicine*. In 2008 two thirds of these were women. The percentage of women professors in this academic field is also lower than the percentage of men professors: only 12.9% of professors at university medical centres are women. The pattern resembles that of the other disciplines in which women students comprise the majority (Graph 5.2): the higher the position, the more frequently it is filled by a man. In comparison with the two other fields with a high percentage of women students, *Social Sciences* (68.6%) and *Language & Culture* (62.6%), the skewed ratio of men to women in higher positions in the academic field of *Medicine* can even be described as substantial. In *Social Sciences* the percentage of women professors is 17.4% and, in *Language & Culture* 18.4%. In comparison, the 12.9% women professors at university medical centres is low.

6 - THE GLASS CEILING

At which point in their academic career do women experience the greatest hindrance? To gain insight into this, the Glass Ceiling Index (GCI) was developed.[13] The GCI measures the 'thickness' of the glass ceiling between various job categories. A GCI greater than 1.0 indicates an obstacle in career movement: *the glass ceiling*. The greater the GCI, the more difficult it is to climb to the next rung on the career ladder.
Table 6.1 shows that the GCI for women was substantially greater than 1.0 with respect to advancement in all job categories in 2003, 2005 and 2008. Women experience hindrance at all stages of their career, but the glass ceiling is thickest at the transition from assistant professor to associate professor. Previous research has already pointed this out (Van Emmerik et al 2000).[14] It is notable that the GCI between assistant professor and associate professor has become somewhat smaller between 2005 and 2008: promotion to the position of associate professor has become slightly easier for women. It is mainly the hurdle from PhD student to assistant professor that has become easier for women to clear. The GCI at the transition from associate professor to full professor has remained the same, but with a thickness of 1.6, promotion from associate professor to full professor is still difficult for women..

TABLE 6.1

Development of the Glass Ceiling Index. Women. At the end of 2003, 2005 and 2008.[1, 13]

	Associate professor / Full professor	Assistant professor / Associate professor	PhD student / Assistant professor
2003	1,6	1,8	1,6
2005	1,6	1,8	1,4
2008	1,6	1,7	1,3

In comparison to the Glass Ceiling Index (GCI) for women, we have also calculated a GCI for men academics. Table 6.2 shows that GCIs in 2003 - 2008 for men were all below 1.0. This applies to the entire spectrum of promotions. One could say that men are in a proverbial *glass elevator* along every step of their career.

TABLE 6.2

Development of the Glass Ceiling Index. Men. At the end of 2003, 2005 and 2008.[1, 13]

	Associate professor / Full professor	Assistant professor / Associate professor	PhD student / Assistant professor
2003	0,9	0,9	0,8
2005	0,9	0,9	0,9
2008	0,9	0,8	0,8

Table 6.1 illustrates that for all academic fields, the hurdle between assistant professor and associate professor is the most difficult to clear. If we subsequently examine the Glass Ceiling Index (GCI) in light of the various job categories, it is clear that this does not apply to all academic fields. Table 6.3 shows that the greatest hurdle to clear for women in *Law* and *Language & Culture* is the one from associate professor to full professor, while the greatest barrier for women in *Science* is the step from PhD student to assistant professor. In comparison to 2003, GCI's have dropped on average in 2008. However, this does not apply to all academic fields. For instance, the step between assistant professor and associate professor has become more difficult for women in the fields of *Agriculture* and *Economics*. We have also noted some shifts. In 2003, the step from PhD student to assistant professor was the most difficult in more academic

fields than in 2008. Effectively promoting female career advancement requires a different approach in the various academic fields, aimed at different steps in their careers. The GCI shows, per academic field, the step in a woman's career on which policy should concentrate.

TABLE 6.3

Glass Ceiling Index women per academic field at the end of 2003 and 2008.[1, 13]

	2003			2008		
	Associate professor / Full professor	Assistant professor / Associate professor	PhD student / Assistant professor	Associate professor/ Full professor	Assistant professor / Associate professor	PhD student / Assistant professor
Agriculture	1,1	1,6	2,6	1,2	2,2	1,9
Science	1,5	2,0	2,2	1,5	1,7	1,9
Technology	1,6	3,2	1,8	1,5	2,8	1,4
Economics	2,1	2,2	1,8	1,5	2,5	1,4
Law	2,5	1,5	1,2	2,1	1,3	1,3
Social Sciences	1,5	1,6	1,9	1,5	1,6	1,5
Language & Culture	1,7	1,1	1,9	1,7	1,1	1,6
Miscellaneous	1,0	2,3	1,2	1,9	1,6	1,3
Total	1,6	1,8	1,6	1,6	1,7	1,3

We have also calculated a Glass Ceiling Index (GCI) per university. Table 6.4 shows that there are also differences between universities with regard to the greatest obstacles faced by women in their academic career. Although, on average you could say that the most difficult step is the one from assistant professor to associate professor, it is apparent that in eight out of the Netherlands' fourteen universities, the ceiling is thickest between the positions of associate professor and full professor. This applies especially to the Erasmus University of Rotterdam, the Open University and the Eindhoven University of Technology.[15] At the three universities of technology and at the University of Wageningen the step from assistant professor to associate professor seems to be the most difficult for women, much more so than at the other universities.

At the Radboud University of Nijmegen the step from PhD student to assistant professor is hardest for women, while this step is easiest at the Twente University of Technology (GCI of 1.0). The GCI makes it clear that the most crucial point in women's academic careers is not the same at all universities, which offers universities a usable framework on which to construct a goal-oriented policy.

TABLE 6.4

Glass Ceiling Index by university at the end of 2008.[1, 13]

	Associate professor / Full professor	Assistant professor / Associate professor	PhD student / Assistant professor
University of Leiden	1,5	1,4	1,4
Utrecht University	1,8	1,4	1,4
University of Groningen	1,6	1,5	1,3
Erasmus University Rotterdam	2,7	1,7	1,3
University of Maastricht	1,7	1,8	1,4
University of Amsterdam	1,2	1,7	1,3
VU University Amsterdam	2,1	1,6	1,4
Radboud University Nijmegen	1,3	1,4	1,8
University of Tilburg	1,8	1,7	1,7
Delft University of Technology	1,1	2,5	1,4
Eindhoven University of Technology	4,0	2,7	1,6
University of Twente	1,8	2,8	1,0
Wageningen University	1,2	2,3	1,9
Open University	2,9	1,4	1,2
Total	1,6	1,7	1,3

7 - PART-TIME EMPLOYMENT

The Netherlands is European leader in part-time employment and this applies mainly to Dutch women. According to the 2008 Emancipation Monitor, 69% of the female working population works in part-time[16] jobs as opposed to 15% of men. The part-time employment of women could easily explain their limited career movement to higher academic positions.

Table 7.1 illustrates the percentage of men and women academics working in full-time and part-time employment. Women work more often on a part-time basis than men: 46% as opposed to 31%. Female academic staff work more often on a full-time basis than other working women. Of all women academics 54% work on a full-time basis, while this percentage is only 31% of the total female working population. Men academics working at universities work part-time more often in comparison to the total male working population: 31% as opposed to 15%.

TABLE 7.1

Distribution in percentage of full-time and part-time employment of male and female academic staff at the end of 2008.[1, 17, 18]

Male academic staff		Female academic staff	
Part-time 0 - 34 hrs	Full-time > 34 hrs	Part-time 0 - 34 hrs	Full-time > 34 hrs
31%	69%	46%	54%

To gain insight into the dimensions of part-time employment, both in hours per week and in FTE per job category, the scope of the work can be divided into the categories 0 to 12 hours a week, 13 to 34 hours a week and more than 34 hours a week. The 0 to 34 hours a week column shows the percentage of people in part-time employment.[17]

From this we can conclude that in all job categories, more women work in part-time jobs than men. The difference is relatively small for professors and PhD students (9% and 10%, respectively), but for assistant professors and associate professors this is much higher and lies at 21% and 22%, respectively. It may be possible that women - because in lower positions they more often work part-time than men - have less time to devote to affairs that could benefit their career movement to higher positions, such as serving on a Board of Governors and conducting research.

TABLE 7.2

Distribution in percentage of the number of hours worked per week by job category and gender based on the scope of the employment contract at the end of 2008.[1]

Number of hours		0 - 12	12 - 34	0 - 34	> 34
Full professors	Men	18%	21%	39%	61%
	Women	21%	28%	48%	52%
Associate professors	Men	8%	21%	29%	71%
	Women	9%	42%	51%	49%
Assistant professors	Men	7%	29%	36%	64%
	Women	7%	50%	57%	43%
PhD students	Men	1%	9%	9%	91%
	Women	1%	19%	21%	79%

Although more women than men work part-time, Table 7.2 provides no insight into the actual scope of academic appointments of both men and women. Every appointment of less than 34 hours is a part-time job, but there is, for example, a major difference between an appointment of 12 to 16 hours and one of 32 hours. More detailed information on job-sizes is necessary in order to determine the actual scope of appointments and the difference in hours that are worked by men and women.

8 - REMUNERATION OF WOMEN AND MEN IN ACADEMIC POSITIONS

Despite a legal right to equal pay for equal labour, in 2008 women in the Netherlands earned 20.8% less on average than their male colleagues. In comparison with other European countries, this difference in remuneration is substantial. This can in part be explained by the fact that in the Netherlands women are often employed part-time and more often in jobs that pay worse than the professions which men normally dominate. If we take these aspects into account, we are left with an inexplicable difference in remuneration of 7%.[19]

To determine if such a difference in remuneration also applies to universities, we have illustrated the gender distribution in certain job categories over the various salary grades in Table 8.1. In all job categories, on average women are ranked more often in a lower salary scale than men. The difference is greatest between men and women full professors.

TABLE 8.1

Distribution in percentage of the salary scales by position and gender at the end of 2008.[1] The higher the scale the higher the salary.

	Full professors		Associate professors		Assistant professors	
	Men	Women	Men	Women	Men	Women
<=10					3,8%	4,5%
11			0,1%	0,3%	34,7%	47,0%
12			0,4%	0,4%	58,5%	47,4%
13			31,9%	46,9%	2,2%	1,0%
14	0,5%	0,1%	64,7%	50,2%	0,6%	0,1%
15	0,5%	1,8%	2,5%	1,5%	0,1%	
16	52,8%	76,9%	0,2%	0,7%	0,1%	
17	0,5%	0,7%	0,1%			
18	40,3%	17,9%				
MISC[20]	5,4%	2,6%				
Total	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

The differences in salary scale could be attributed to the fact that men academics - and especially men professors - are often older than women professors and, having been employed as a professor for a longer time, are therefore placed in a higher salary scale. Men can be found in the older age groups of all job categories. To eliminate the influence of age in examining possible differences in remuneration, we have mapped out the distribution of professors below the age of 60 and below the age of 55 over the various salary scales. Table 8.2 shows clearly that the majority of professors in salary scales 17 and 18 (the highest university salary scales in conformity with the collective labour agreement) is older than 55 years of age. This applies more to men than women professors. Of the 836 FTE worked by men professors in salary scale 17/18, 375 FTE is included in the category of professors below the age of 55. More than half of the FTE worked by men professors in these salary scales are professors older than 55. In the case of women, 15 of the 50 FTE in scales 17 and 18 are worked by professors older than 55 - this is 30%.

TABLE 8.2

Distribution of salary scales, professors by gender, at the end of 2008.[1] The higher the scale the higher the salary.

	Full professors *all ages*		Full professors *aged 60 and under*		Full professors *aged 55 and under*	
	Men	Women	Men	Women	Men	Women
<=14	12	0	11	0	9	0
15 + 16	1.092	213	924	197	712	146
17 + 18	836	50	593	45	375	35
MISC[20]	110	7	93	4	73	2
Total	2.050	271	1.621	246	1.169	184

We have noted in Table 8.3 that the differences in the percentage of men and women professors in salary scales 15/16 and 17/18 are smaller if we do not take into consideration the 60+ and 55+ group. If we do not take the group of professors older than 55 into consideration, the percentage of men professors in the highest scale will drop and, consequently, increase in the lower scales. No substantial changes can be seen in the distribution of women professors over the salary scales if we do not take into consideration the group of women professors older than 55. Age might be an important factor in partially explaining why more men than women professors can be found in the highest salary scales. At the same time, we have to conclude that in the group of professors below 55 years of age there are substantially more men than women in the highest salary scale: 32% of men professors as opposed to 19% of women professors. The corresponding difference in salary is by no means small. More research is required if we aim to gain more insight into what may have caused these differences between men and women.

TABLE 8.3

Distribution in percentage of salary scales, professors by gender, at the end of 2008.[1] The higher the scale the higher the salary.

	Full professors *all ages*		Full professors *aged 60 and under*		Full professors *aged 55 and under*	
	Men	Women	Men	Women	Men	Women
<=14	0,6%	0,1%	0,7%	0,1%	0,8%	0,1%
15 + 16	53,3%	78,7%	57,0%	80,0%	60,9%	79,5%
17 + 18	40,8%	18,6%	36,6%	18,1%	32,1%	19,1%
MISC[20]	5,4%	2,6%	5,8%	1,7%	6,2%	1,3%
Total	100%	100%	100%	100%	100%	100%

9 - WOMEN IN DECISION-MAKING BODIES

The previous chapters focused on the career movement of women in faculty positions. This chapter discusses the representation of women in executive academic positions at universities, university medical centres (UMCs), the Netherlands Organisation for Scientific Research (NWO) and the Royal Academy of Arts and Sciences (KNAW). Is the participation of women in the decision-making bodies of academic institutions in the Netherlands equal to that of men?

UNIVERSITIES

The number of women in high academic positions is limited and due to the growing link between academic positions and experience in academic management positions, the skewed gender distribution in high academic positions at universities is reflected by the low percentage of women holding academic management positions at universities. Table 9.1 illustrates how this percentage has increased steadily in the past few years; from 10.9% in 2005 to 12.4% in 2008. You will note that the percentage of women in academic management positions corresponds to the percentage of women professors.

TABLE 9.1

Academic management, by gender and percentage of women in academic management at universities at the end of 2005-2008.[1, 21]

	Men	Women	Percentage of women
2005	97,2	11,9	10,9%
2006	105,3	11,8	10,1%
2007	101,2	12,5	11,0%
2008	105,8	15,0	12,4%

The percentage of women differs per academic management position. Table 9.2 shows that in 2008, measured in FTE, women most often occupy the position of director of education: 24% of all directors of education are women. Only 6.3% of all research directors are women and only 5.2% are female faculty deans. This could perhaps be attributed to a gender effect: the percentage of women is lowest in those positions that are most prestigious: dean or research director. Academic research generally enjoys higher esteem than academic education: academics are generally merited according to their research qualities. In other words: the status of a research director is higher than that of a director of education.

TABLE 9.2

Gender distribution within academic management at universities and the percentage of women in positions within academic management at the end of 2008.[1, 21]

	Men	Women	Percentage of women
Dean	54,4	3,0	5,2%
Director of education institute	33,5	10,6	24,0%
Director of research institute	14,8	1,0	6,3%
Director of capacity group	3,0	1,5	32,6%
Total academic management	105,8	15,0	12,4%

Table 9.3 illustrates that women are particularly underrepresented on the Boards of Governors of universities. Only 3 out of 41 members of such boards are women: this is only a measly 7%. Women are better represented in the supervisory boards of universities. Every supervisory board has at least one woman member, and there will often be two. A total of 31% of the members of supervisory boards are women. The members of supervisory boards are appointed by the Minister of Education, Culture and Science (OCW). When these university supervisory boards were inaugurated in the nineties, the former Minister of Education, Culture and Science reached an agreement with the Dutch Senate that at least one member of a supervisory board must be a woman. A section has been incorporated in the relevant Act with respect to the proportionate participation of women on these boards.[22]

TABLE 9.3

Gender distribution in the Boards of Governors and Supervisory Boards of the universities. July 2009.[23]

	Board of Governors		Supervisory Board	
	Men	Women	Men	Women
University of Leiden	2	1	3	2
Utrecht University	2	1	4	1
University of Groningen	3	0	3	2
Erasmus University Rotterdam	3	0	3	2
University of Maastricht	3	0	4	1
University of Amsterdam	2	1	3	1
VU University Amsterdam	3	0	7	2
Radboud University Nijmegen*	3	0	4	3
University of Tilburg*	2	0	5	2
Delft University of Technology	3	0	3	2
Eindhoven University of Technology	3	0	4	2
University of Twente	3	0	4	2
Wageningen University	3	0	3	1
Open University	3	0	3	1
Total	38	3	53	24

** Foundation Board instead of Supervisory Board*

UNIVERSITY MEDICAL CENTRES

With respect to university medical centres, we reviewed the number and percentage of women head of department professors. Table 9.4 shows that women occupy an average of 10% of all professorial positions in which they are also head of department. This is almost equal to the percentage of women holding academic management positions at universities. Please note that the number and percentage of women fluctuate substantially per university medical centre.

TABLE 9.4

Number of professors who are department heads at university medical centres, by gender.
Benchmark date: 31 December 2008 - July 2009

	Full professors who are department heads			
	Men	Women	Total	% Women
Leiden University Medical Centre	37	2	39	5,1%
Urecht University Medical Centre	35	4	39	10,3%
Groningen University Medical Centre	34	5	39	12,8%
Erasmus Medical Centre	48	1	49	2,0%
Academic Hospital Maastricht	36	4	40	10,0%
Academic Medical Centre (UvA)	37	11	48	22,9%
VU Medical Centre	37	5	42	11,9%
St Radboud University Medical Centre	41	2	43	4,7%
Total	305	34	339	10,0%

Table 9.5 illustrates the gender distribution of members of the Board of Governors and Supervisory Boards of university medical centres. Only two out of thirty members of the Boards of Governors of university medical centres are women. This percentage does not even represent 7%. This low percentage corresponds to the percentage of women on the Boards of Governors of universities. It can be ascertained from this table that women are better represented on the supervisory boards than in daily management of the university medical centres. Of the 47 members of the supervisory boards of university medical centres 14 are women, which is almost 30% - practically the same percentage as in the supervisory boards of universities.

TABLE 9.5

Gender distribution in Boards of Governors and Supervisory Boards of university medical centres.
July 2009.[24]

	Board of Governors			Supervisory Board		
	Men	Women	Total	Men	Women	Total
Leiden University Medical Centre	4	0	4	3	2	5
Utrecht University Medical Centre	4	0	4	4	3	7
Groningen University Medical Centre	4	0	4	3	2	5
Erasmus Medical Centre	3	1	4	4	1	5
Academic Hospital Maastricht	4	0	4	4	0	4
Academic Medical Centre (UvA)	2	1	3	4	1	5
VU Medical Centre	4	0	4	7	2	9
St Radboud University Medical Centre	3	0	3	4	3	7
Total	28	2	30	33	14	47

NETHERLANDS ORGANISATION FOR SCIENTIFIC RESEARCH (NWO)

Table 9.6 shows that the percentage of women active in the executive bodies of the Dutch Organisation for Scientific Research (NWO) is relatively high (25%), especially in comparison with the percentage of women professors at universities, which is 11.7%. Our data concludes that out of the ten administrative bodies of the NWO, two are chaired by women and one has a female vice-chairperson.

TABLE 9.6

Gender distribution in division and foundation boards of the Dutch Organisation for Scientific Research (NWO) by division. June 2009.[25]

	Men	Women	Total	Percentage of women
Chairpersons, vice-chairpersons	12	3	15	20%
Members	36	13	49	27%
Total	48	16	64	25%

Table 9.7 shows that the percentage of women in various division boards of the NWO fluctuates considerably per field. Boards with a relatively high number of women are *Medical Science* and *Humanities*. The boards of *Physical Sciences* have no women at all. In fact, only few women work in these academic fields, especially in higher academic positions. The low number of women board members in *Social Sciences* is remarkable, because there are actually a lot of women working in these fields, higher academic positions included (see Graph 5.2).

TABLE 9.7

Gender distribution in division and foundation boards of the Dutch Organisation for Scientific Research (NWO) by division. June 2009.[25]

	Men	Women	Total	Percentage women
Humanities	5	4	9	44%
Social Sciences	6	1	7	14%
Physics	5	0	5	0%
Chemistry	4	1	5	20%
Science	4	0	4	0%
Earth and Life Sciences	8	1	9	11%
Medical Science	3	5	8	63%
Technology	4	1	5	20%
Science for Global Development (WOTRO)	5	2	7	29%
National Computer Facilities Foundation (NCF)	4	1	5	20%
Total	48	16	64	25%

ROYAL NETHERLANDS ACADEMY OF ARTS AND SCIENCES (KNAW)

According to Table 9.8, women are well represented in all administrative bodies of the Royal Netherlands Academy of Arts and Sciences (KNAW), certainly if we compare the percentages of women board members (20% to 40%) to the percentage of women professors at universities (11.7%). Where Academy Professors are concerned, women are still underrepresented. Only 10% of all Academy Professors are women. It is encouraging to perceive that women are better represented in the Young Academy[26] than among the ranks of the Academy Professors. Almost 40% of the members of the Young Academy are women and this same percentage is reflected on the Board of the Young Academy.

TABLE 9.8

Gender distribution Royal Netherlands Academy of Arts and Sciences (KNAW) by directors, boards, Academy Professors and Young Academy members. July 2009.[27]

	Men	Women	Total	Percentage of women
General board and members	8	4	12	33%
Executive board	4	1	5	20%
Board of management	2	0	2	0%
Board of Humanities and Social Sciences Division	3	2	5	40%
Board of Science division	3	2	5	40%
Academy Professors*	313	35	348	10%
The Young Academy Board	3	2	5	40%
The Young Academy other members	46	29	75	39%

**retired and foreign members excluded*

10 - ACCELERATING THE GROWTH OF WOMEN PROFESSORS

The number of women in all academic positions is increasing. The percentage of women professors has been increasing since 2003 by a little over 0.5% a year. If we continue to grow at this pace, the goal set by the Ministry of Education, Culture and Science in 2005 of 15% women professors in 2005 will not be achieved until 2014; and the goal set by EU in the Lisbon Agreement in 2000 of 25% women professors in 2010 will not be achieved until 2030. If we aim to achieve these goals at an earlier point in time, many more women professors will have to be appointed than in previous years. This will be possible because the professors of the baby boom generation will be retiring soon. At the end of 2008, there were 625 professors aged 60 and older, of which 95% were men. Potential candidates to succeed these professors can be found, among others, among the ranks of associate professors.

Table 10.1 indicates the number of professors per academic field due to retire within the next five years and the number of men and women associate professors in the relevant academic field younger than 60 years of age. In the field of *Agriculture*, 21 professors will be retiring and there are 18 female associate professors. This means that, theoretically speaking, 86% of these professors due to retire could be succeeded by a woman associate professor. The last column of Table 10.1 shows that the number of potential candidates from the ranks of associate professor is sufficient to replace a large part of the professors coming up for retirement. There are notable differences between the various academic fields: there are fewer potential candidates in the fields of *Technology, Economics* and *Science* than in *Social Sciences*.

TABLE 10.1

Potential number of women associate professors as possible successors of Baby Boom generation professors due to retire at the end of 2008.[1]

	Full professors			Associate professors			
	aged 60 and older			under 60 years of age			Potential women associate professors to succeed full professors
	Men	Women	Total	Total	Men	Women	
Agriculture	18	3	21	119	101	18	86%
Science	100	4	104	319	276	43	41%
Technology	110	1	111	415	384	31	28%
Economics	80	2	82	243	214	29	35%
Law	72	6	78	196	129	67	86%
Social Sciences	94	7	101	388	269	119	118%
Language & Culture	101	6	107	200	128	72	67%
Miscellaneous	19	2	21	32	19	13	62%
Total	594	31	625	1912	1520	392	63%

Even if vacancies will be appearing soon for which women professors can be appointed, these women will nevertheless first need to be selected.
Large-scale research into the gender aspects of professorial appointments (Van den Brink 2009) has concluded that in the Netherlands between 1999 and 2005 the composition of the selection committee has an effect on the gender of the appointed professors. If the committee is composed only of men, 7.5% of the selected candidates will be women. But if two women are on the selection committee, 24% of the selected candidates will be women. A statutory provision stating that every professorial appointment committee must hold at least two women would adequately serve to increase the percentage of women professors.
The same study concluded that professors with high positions on university boards often play an important part in the active recruitment of candidates for professorial positions and that these board members often have a subconscious preference for candidates with whom they are acquainted, in whom they have confidence and with whom they can identify. Furthermore, they seek candidates within their own networks. In Chapter 9 we noted that at most universities the percentage of women in executive positions is very low. In this perspective, it comes as no surprise that in 2008 only one out of six candidate professors was a woman. These men directors and board members seek candidates in their own network and identify more clearly with male. One of the benefits of attaining a more equitable gender distribution in university executive positions would be an increase in the percentage of women professors.

NOTES - BIBLIOGRAPHY

1 WOPI (Higher Education Personnel Information) files contain information about university personnel members. The file is compiled and managed by the VSNU office. For the tables and graphs in the Monitor use was made of data in WOPI in FTE (full time equivalents). Only the data in Table 10.1 was compiled completely in numbers instead of in FTE. This table is also based on WOPI. The tables in Chapter 9 are also in numbers. These tables were based on sources other than WOPI. For the acknowledgement of sources, see the notes corresponding to the tables.

2 The transfer of staff from medical faculties of universities to university medical centres has resulted in a loss of insight into the total academic field of *Medicine*. The small portion of the entire academic field of *Medicine* that could still be traced in the WOPI files has not been taken into consideration for the compilation of this Monitor. Data about professors in the majority of the academic field of *Medicine* was provided by individual university medical centres. Several benchmark moments were used for this data between 31 December 2008 and 1 August 2009. Taking into account that this was the very first time data from university medical centres was compiled in this way, it may not be 100% reliable. This data should serve as an indication rather than be treated as exact. Like student data from all other academic fields, data about students in the academic field of *Medicine* is derived from 1cHO (see note 3)

3 For data about students and graduates, use was made of the source file 1cHO, an extract from the Central Register for Enrolment in Higher Education (CRIHO), which includes data about the intake of first-year students, enrolment and exams. The majority of student data is registered on 1 October of the relevant year and graduate data concerns Master's and Doctorate degrees according to academic year.

4 Time is not among the factors included in the scissors diagram. The groups were not compiled from the same cohort.

5 Visser, A., M. Dierdorp and H. van Emmerik (2003). *Succes en dilemma's van een stimuleringsmaatregel. Evaluatie van het Aspasia-programma* (Successes and dilemmas of a stimulation measure. Evaluation of the Aspasia Programme). Utrecht: Netherlands association of Women's Studies commissioned by the National Consultative Body for Emancipation and Quality of Higher Education LOEKWO.

6 In the Lisbon Agreement of March 2000 the European Council agreed to create the world's most competitive and dynamic knowledge economy by 2010. A detailed description of this objective can be found in: *Investeren in onderzoek. Een actieplan voor Europa* (Investing in Research. A Plan of Action for Europe). A message from the European Commission. COM (2003) 226 def. http://europa.eu/legislation_summaries/research_innovation/general_framework/i23021_nl.htm

7 Note: Ministry of Education, Culture and Science (OCW). *Onderzoekstalent op waarde geschat* (Research talent estimated at value). The Hague: 2005.

8 Source: "Women in Science Database, European Commission, DG Research."

9 There is a historic explanation for the order in which the universities are presented in tables and graphs: they are sorted by date of establishment.

10 Example calculation of the index in Table 4.2: At Leiden University the percentage was 14.2% in 2003 and 16.3% in 2008. Index = (16.3/14.2) * 100. The index is 115. The percentage in 2008 is thus expressed in the percentage of 2003, in which the percentage of 2003 has been ascertained at 100.

11 In the Higher Education and Research Plan (HOOP) of the Ministry of Education, Culture and Science (OCW) a categorization has been included of academic fields. These academic fields are sometimes referred to as HOOP fields. HOOP distinguishes between nine fields: *Agriculture, Science, Technology, Economics, Law, Medicine, Social Sciences, Language & Culture* and *Education*. In the source files, students and graduates are categorised according to their academic programmes in these nine fields. University personnel is in the WOPI files categorised in eight fields and in *Miscellaneous*. The field of *Education* is not used for the categorization of university personnel. For the category entitled *Miscellaneous*, see note 12 for further explanation.

12 The category *Miscellaneous* comprises professors which cannot be categorised in a particular academic field.

13 Calculation of Glass Ceiling Index (GCI):

$$\frac{\text{percentage of women in job category X-1}}{\text{percentage of women in job category X.}}$$

The values of the GCI run from 0 to infinite. When the percentages are practically equal, it appears that there is no obstacle. The GCI value would then lie at around 1.0. The higher the value above 1.0, the thicker the glass ceiling. When the value is below 1.0, women in higher job categories are better represented than women in the job category directly below. The GCI does not provide information about the actual career movement and does not calculate the likelihood of promotion.

14 Emmerik, H. and, R. Dekker and I. Claringbould (2000). 'Waarom gaat het zo langzaam? Enkele observaties vanuit de praktijk van het universitaire emancipatiebeleid. '(Why does it take so long? A few observations taken from the practice with respect to university equal opportunities policy) *Tijdschrift voor Genderstudies (Journal of Gender Studies), 3. (1). 49-58'.*

15 At the Eindhoven University of Technology, the low number of women academics may be of influence on the calculation of the GCI, making it appear higher.

16 A part-time job = 12-34 hours a week, according to the Statistics Netherlands (CBS); a full-time job = more than 34 hours a week, according to the Statistics Netherlands (CBS) (Emancipation Monitor 2008 SCP, CBS).

17 Part-time is considered here as 0 - 34 and full-time as more than 34 hours a week. The Emancipation Monitor leaves all labour relations below 12 hours a week out of consideration. For universities, it is preferable to include all labour relations up to and including 34 hours a week, as almost 20% of professors have labour relations of less than 12 hours a week.

18 Academic staff includes full professors, assistant professors, associate professors, PhD students and other academic staff such as teachers and researchers.

19 *ITUC Gender Pay Gap Report 2008.* For more information about this study, see: www.loonwijzer.nl

20 MISC (Miscellaneous) in salary scales includes those persons/FTE that have unspecified salary scales in the WOPI files.

21 Academic management is determined according to the UFO profiles (University Job Classification System) for academic management positions as included in the WOPI files. It cannot be precluded that employees in academic management, for example those working in dual jobs, have been included in a profile other than the UFO profile for academic management and can therefore not be discerned as holding an academic management position in the WOPI files.

22 Section 9.7. The Higher Education and Academic Research Act (WHW).

23 The number of men and women in Boards of Governors and Supervisory Boards was obtained via the websites of various universities in July 2009.

24 According to the NFU (Netherlands Federation of University Medical Centres), July 2009.

25 Data from the Netherlands Organisation for Scientific Research NWO is based on information on the NWO website, June 2009.

26 The Young Academy was founded in 2005 by the Royal Netherlands Academy for Arts and Sciences KNAW to establish a connection with young academics. The Young Academy comprises young researchers who obtained their PhD less than ten years previously and who have distinguished themselves in their academic fields. Ten new members are elected every year.

27 Data from the Royal Netherlands Academy for Arts and Sciences KNAW is based on information on the KNAW website, July 2009.

28 Van den Brink, M. (2009). *Behind the Scenes of Science. Gender practices in the recruitment and selection of professors in the Netherlands.* Nijmegen: Radboud University.

PARTNER INFORMATION

THE ASSOCIATION OF UNIVERSITIES IN THE NETHERLANDS (VSNU)

www.vsnu.nl

All of the Netherlands' fourteen research universities are members of the VSNU, The Association of Universities in the Netherlands. The VSNU represents the interests of its members vis-à-vis the Dutch government, politicians, government and civil society organisations. The Association's primary task is to reinforce the social position of higher education and research. The VSNU manages and develops information about education, research, personnel and finance for policy development, justification, benchmarking and quality control purposes. Index numbers in the area of personnel management are part of the Higher Education Personnel Information (WOPI) file.

THE DUTCH NETWORK OF WOMEN PROFESSORS (LNVH)

www.lnvh.nl

The Dutch Network of Women Professors is a foundation that was established in 2001. In 2007 the LNVH received a long-term grant from the Ministry of Education, Culture and Science (OCW). The aim of the LNVH is to promote the proportionate representation of women in the university community and of women professors in advisory bodies in the field of scientific research and education. The LNVH aims to achieve this goal by organising activities (symposia, talent days) for women academics, by reinforcing the ties between women professors in the Netherlands, by supporting activities that support professorship and by nominating women candidates for Spinoza Grants, membership to the Young Academy, as Academy Professors and for prestigious academic awards and positions. Every year, the LNVH consults with the Boards of Governors of all the Dutch universities about the percentage of women in various academic positions and discusses activities that could promote the proportionate representation of women.

SOCIAL FUND FOR THE KNOWLEDGE SECTOR (SOFOKLES)

www.SoFoKleS.nl

SoFoKleS is the Social Fund for the Knowledge Sector. SoFoKleS conducts research relevant to the labour market at universities, research institutes and university medical centres and carries out projects to improve the functioning of this labour market. SoFoKleS encourages these institutes to share their knowledge and experience in this area. SoFoKleS is sponsored by the Centre for Labour Relations (CAOP) in The Hague.

THE DE BEAUVOIR FOUNDATION (STICHTING DE BEAUVOIR)

www.stichtingdebeauvoir.nl

The de Beauvoir Foundation aims to promote the number of women in higher academic positions at Dutch universities. The Foundation employs two methods to achieve this goal: by establishing endowed chairs for women at Dutch universities and through the periodical publication of a Monitor with information about the position of women in the Dutch academic world. Previous Monitors were published in 2002 and 2006. The Foundation receives administrative support from the University of Maastricht and the University of Groningen and receives further financial support from the universities of Leiden, Utrecht and Amsterdam, the Erasmus University of Rotterdam, VU University of Amsterdam, Delft University of Technology and the University of Twente.

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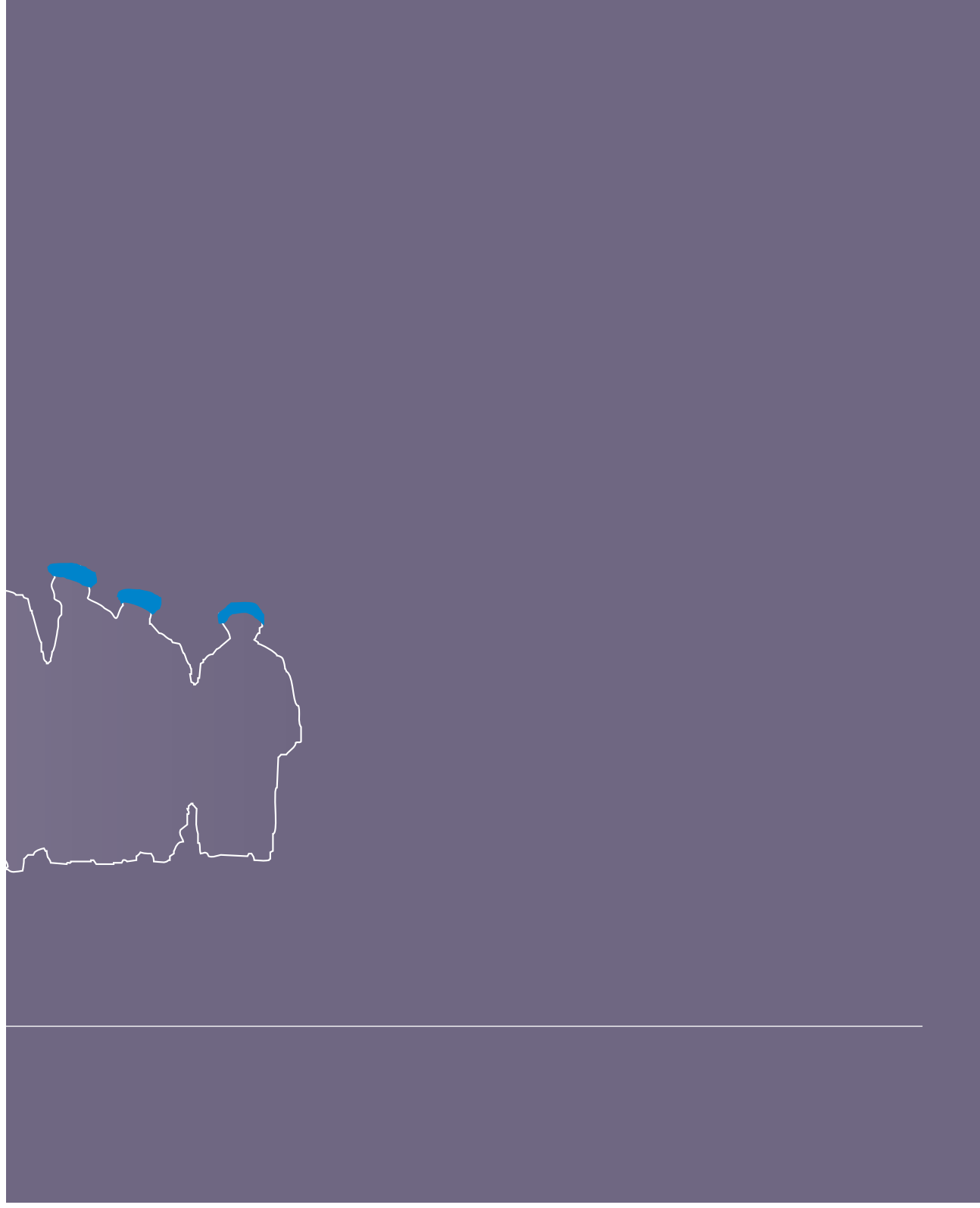

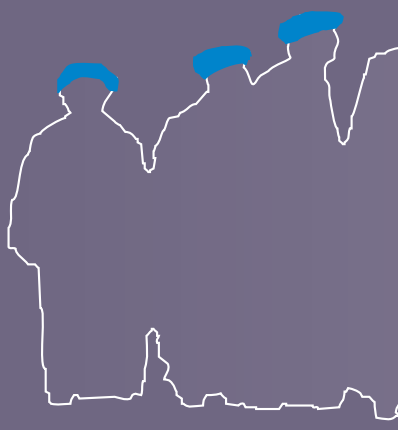

STICHTING de Beauvoir

Stichting ter bevordering van de participatie van vrouwen in de beoefening van de wetenschap

SOFOKLES
SOCIAAL FONDS VOOR DE KENNISSECTOR

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