

## FADTS ON HENDER IMBALANGES IT ABADEMIG GAREERS



With the distinctiveness of its diversity, Copenhagen Business School aims to become a world-leading business university. The diversity of CBS in disciplines, research methods and cross-disciplinary programmes has been a key contributing factor to the remarkable development of CBS over the last decades. The diversity of our faculty, staff and students ensures the innovative and creative thinking that will further this development over coming decades.

This booklet is dedicated to documenting imbalances associated with gender at CBS. It is an update of the CBS' Gender Statistics 2015 since we need to keep an eye on the development. Evidence and awareness, however, are not enough to create the necessary changes. Focus and management interventions are needed to achieve change. In recognition of the general and persistent challenge to ensure equal representation of talent in academia, I commissioned a study on gender and academic leadership practices at CBS in 2015. The study showed that culture and practices in recruitment and promotion procedures - and the fact that parenthood is still borne mainly by women - are all factors contributing to gender imbalances in the academic pipeline

In response to the findings of the study, senior management has in consultation with CBS' Council for Diversity and Inclusion implemented changes of relevance for the career development of faculty, such as:

- Principles for diversity in scouting as a precondition for the allocation of positions
- Requirements to ensure transparency in calls for positions and criteria for recruitment
- An organizational cross-departmental mentor programme for faculty's broader career development, supplementing academic mentoring
- Re-integration scheme upon return from parental leave
- Bias awareness introduced in the leadership development programme

These changes will over time contribute to a better balance in the careers of all faculty at CBS.

The conclusion is clear. We have documented some obvious gender imbalances at CBS and they will not disappear unless we choose to deal with them through concerted managerial effort. I will continue to address the challenge and to work to strengthen the conditions for an inclusive culture at CBS for all faculty, staff and students.

Per Holten-Andersen,
CBS President

## THE CBS LEAKING PIPELINE, POPULATION

## SHARE OF WOMEN/MEN IN ACADEMIC STAFF AND STUDENTS



The figure shows the gender composition among students and academic staff at CBS from bachelor students to Full Professor in three select years: 1999, 2007 and 2017.

The leaking pipeline metaphor refers to the continuous loss of women in academia as we move up the career ladder.

The figure shows that the gender composition at the Assistant Professor level reached a 60:40 balance in 2017, a balance that CBS had obtained at the PhD level already in 1999.

The figure further shows that no significant changes have been made at the level of Associate Professor and Full Professor since 1999. Thus, more than $65 \%$ of Associate Professors and more than $80 \%$ of the full Professors are male, as compared with a figure of $55 \%$ at the PhD level.

Our data implies that there is no reason to believe that the gender imbalance at the senior level will change by itself within a reasonable timeframe.

As a fist initiative to address the gender imbalance, CBS included a target in the CBS Development Contract with the Ministry 2015-2017 to increase the number of qualified female applicants for full Professorships, see page 6.

## OUALIFIED FEMALE APPLICANTS FOR FULL PROFESSORSHIPS, 2015-2017

The figure shows the percentage of qualified female applicants for full Professorships in 2013-2017 as well as the CBS' goals for 2015-2017. The share of qualified female applicants increased in 2015 and 2016. The ambition of reaching $\mathbf{2 5 \%}$ qualified female applicants in 2017 was however not reached, since only $19 \%$ of the qualified applicants were female.

In order to address the gender imbalance at the level of full Professor, CBS has for some years specifically monitored the recruitment of men and women for Professorships. A goal was set for the period 2015-2017 to increase the number of qualified female applicants to become full Professors from a total of $22 \%$ qualified female applicants in 2014 to $25 \%$ qualified female applicants in 2017.

Please note that the numbers are relatively small since only a limited number of positions are opened each year. Thus, there are only a few absolute numbers behind clear fluctuations on the cure. The number of qualified applicants for Professorships at CBS in the three year period was 30 in total, hereof 8 women.

The development goal has increased attention in the organization to the unexplained fact that despite decades of gender balanced PhD student enrollment as well as PhD degree completions, it still applies that four out of five Professors at CBS are male. It has become clear to senior management that the single and isolated target at the level of Full Professor is not sufficient to change the gender imbalance in the very top academic positions at CBS. The limited number of female applicants to full Professorships is due to a leak of women in the academic pipeline happening at every step of the career ladder.

Therefore, CBS has implemented transparency in criteria for recruitment as well as a more systematic monitoring of diversity in recruitment and promotion processes. Once a year, data relevant to the recruitment strategy are discussed by the senior management and CBS' Academic Council.

## THE CBS LEAKING PIPELINE, RECENT RECRUITMENTS

## SHARE OF WOMEN/MEN IN ACADEMIC STAFF AND STUDENTS



## NEWLY RECRUITED - SHARE OF MEN AND WOMEN



The top figure is the same as the figure on page 4. The bottom figure and the table below show the gender composition of newly recruited academic staff at CBS from 2015 to 2017.

Over the three years a total of 196 faculty are recruited, hereof $64 \%$ men and $36 \%$ women.

The data show variations over the years and position categories, including the number of new positions offered.

In the three year period the share of women recruited as Associate Professor and Full Professor are higher than the share of the population of emale faculty in the same position categories.

Please note that the absolute numbers are relatively small and thus, there are only a few observations behind the fluctuations of the curve.

|  | $\mathbf{2 0 1 5}$ |  | $\mathbf{2 0 1 6}$ |  | $\mathbf{2 0 1 7}$ |  | Total | Total | Total |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | Men | Women | Men | Women | Men | Women | Men | Women | Women <br> share |
| Assistant Professor/postdoc | 18 | 15 | 16 | 14 | 26 | 10 | 60 | 39 | $39 \%$ |
| Associate Professor | 7 | 3 | 12 | 7 | 11 | 10 | 30 | 20 | $40 \%$ |
| Professor MSO | 2 | 0 | 3 | 0 | 11 | 9 | 16 | 9 | $36 \%$ |
| Professor | 5 | 3 | 3 | 2 | 7 | 2 | 15 | 7 | $32 \%$ |

## gender And Appointment OF FACULTY AT CBS, 2010-2016

the gender composition among applicants to Academic positions AT CBS, 2010-2016


The figure and tables on the next page show the gender composition among applicants, qualified applicants and applicants recruited to academic positions at CBS n the period 2010-2016.

The figure shows a clear male dominance amongst applicants. In total $69 \%$ of the applicants are male. The uneven gender composition is more pronounced for the Professorships ( $78 \%$ male applicants) and marginally more balanced for the applicants for Assistant Professor positions ( $65 \%$ male applicants).

The figure also shows that women are more successful with their applications, as the gender composition for all the academic job categories are more equal for those actually employed in the positions than among the applicants. Our data show however that the gender equalization that takes place in the recruitment process is larger the lower we are in the position hierarchy. Thus, there is virtually no difference in the share of women among applicants for full Professorships ( $22 \%$ ) and the share of women recruited as full Professors (23\%).

Further, the figure shows that while 2 out of 3 applicants are male at junior level (post doc and Assistant Professor), there is close to equal gender distribution among the applicants recruited for these positions. Thus, on average over the 7 year period, $55 \%$ of he recruited Assistant Professors are male and $45 \%$ female.

Note: Data for 2017 are not included in the data set due to the introduction of shortlisting for assessment at CBS as a new tool in faculty recruitment as of 2017

The recruitment process is divided into three core phases: nudging \& scouting, assess ment of applicants, i.e. the candidates as qualified for the position or not, and selection of the best qualified, who will further be offered the position. Potential gender bias in the recruitment process and the two phases has been analyzed.

Table 1 shows that women's success rates are higher than men's for all position categories, however with variations across position categories and only significant $(p<0,05)$ at the junior position level.

Table 2 shows that around $50 \%$ of the applicants for the Professor and Profesor mso positions are assessed qualified. This applies to both men and women. For applicants to Associate Professor and Assistant Professor the female applicants are assessed qualified more frequently than the male applicants, but the differences are not significant $\mathrm{p}=0,137$ and 0,232 .

Table 3 shows a higher success rate for qualified women than for qualified men in all position categories, while the difference is only significant for post doc and Assistant Professor positions $\mathrm{p}=0,016$ and 0,029 .

| Table l: <br> Overall success-rate: recruited /all applioants | Pastioc | Assistant Prof. | Associate <br> Prof. | Professor MSO | Professor | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Female | 49\% | 16\% | 14\% | 34\% | 29\% | 19\% |
| Male | 25\% | 11\% | 11\% | 29\% | 27\% | 15\% |
| P-value | 0,001 | 0,008 | 0,209 | 0,713 | 0,928 | 0,002 |


| Table 2: Rate of qualified appl.: qualified appl. /all applitants | Postior | Assistant Prof. | Associate Proif. | Professor MSO | Professor | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Female | 78\% | 74\% | 58\% | 50\% | 48\% | 66\% |
| Male | 60\% | 70\% | 52\% | 51\% | 52\% | 60\% |
| P-value | 0,014 | 0,232 | 0,137 | 1 | 0,639 | 0,003 |


| Table 3: Recruitment rate: recruited/qualified applioants | Postioc | Assistant Prof. | Associate Prof. | Professor MSO | Professor | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Female | 63\% | 22\% | 25\% | 69\% | 60\% | 29\% |
| Male | 42\% | 15\% | 21\% | 57\% | 52\% | 24\% |
| P -value | 0,029 | 0,016 | 0,443 | 0,586 | 0,57 | 0,032 |

The p -value expresses the probability that the observed difference is random. If $\mathrm{p}<0,05$ the observed difference is deemed not to be random, but significant.

## FRACTION OF MALE AND FEMALE:

 ALL APPLICANTS, QUALFIED APPL. AND APPOINTEDWomen advance to the next rank on the academic career ladder to a lesser degree than men: Our recruitment data show that $65 \%$ of the Associate Professors recruited in the period 2010-2016 are men. This should be seen in the light of the pool of Assistant Professors appointed in the same period with a fairly even gender composition ( $55 \%$ male and $45 \%$ female Assistant Professors).

Our data imply that women are less likely to apply for Associate Professor positions. We do not yet know why this is the case, when - as data show - female applicants in general are more qualified than male applicants. In order to understand why women are less inclined to apply for tenured positions, CBS Council for Diversity and Inclusion will initiate a study of the influence of gender on career development and career paths.


The figure above also shows that the uneven gender distribution in the faculty recruit-
ments is more pronounced the higher in the position hierarchy we get. The difference in ments is more pronounced the higher in the position hierarchy we get. The difference in probability of success between men and women narrows upwards in the hierarchy (the curves converge).

## THE CBS LEAKING PIPELINE BY DEPARTMENT, 2017

The figures show the gender composition from PhD student to Full Professor at the 14 departments at CBS.


## Department of Digitalization (DIGI)



## Lepartment of Finance (FI)



Mepartment of Management, Society and Communication (MSC)



Department of
Economics (ECON)


Department of
Innovation and Organizational Economics (INO)


Department of
international Economics and Management (INT)



The most recent data as of 2017 are presented. The figures show that the gender composition varies substantially between departments. Please note that the numbers are small. Note: A department reorganization has resulted in 11 departments as of July 2018

## GENDER AND SALARY FOR CBS FACULTY, 2017

## REPRESENTATION OF MALE AND FEMALE FACULTY IN FORMAL ACADEMIC

 governance and leadership, 2018

The figure shows the recruitment base (tenured faculty: Associate Professors, Professors mso, and full Professors) to faculty membership of CBS Academic Council and to the academic management positions as Head of Department, Programme Director, Vice President/Vice dean and Senior Management.

Eligibility to academic management positions in research and education requires an academic background, typically at or above the level of Associate Professor

The figure shows that $71 \%$ of all tenured faculty are male in 2017. It also shows that the men in academic leadership and management positions constitute between 60 and $83 \%$ in june 2018.

GENDERED WAGE DIFFERENCE AMONG FACULTY, MONTHLY SALARY


The figure shows wage difference (monthly salary) between men and women for all CBS' employees in faculty positions as Assistant Professor, Associate Professor, Professor MSO and Professor October 2017.

In each position category women systematically earn less than men, a difference in pay that is marginal at the level of Assistant Professor and Associate Professor. At the Professor level the female Professors' pay gap amounts to approximately DKK 3,800 (EURO 500), corresponding to a situation where male Professors are paid a gender bonus of $5.5 \%$. For each of the four position categories the gender pay gap is not statistically significant.

Other factors than gender might explain the total wage difference among faculty at same position level. I thus present this analysis with reservations and as work in progress. An analysis of the relation between wage and academic field has been initiated.

The four figures below show monthly salary for all CBS' employees in faculty positions as Assistant Professor, Associate Professor, Professor MSO and Professor October 2017. Each position category is depicted in one picture. In each picture all individual employees are represented in a coordinate system according to their gender (women are orange and men are grey), age and salary.

The gender pay gap is marginal at the level of assistant and Associate Professor. There is a pay difference between male and female professors, it is however not statistically significantly due to the relative small numbers of only 20 female professors (and 89 male professors).

## CBS ASSISTANT PROFESSORS' WAGE BY AGE AND GENDER



## CBS ASSOCIATE PROFESSORS' WAGE BY AGE AND gENDER



The bottom picture depicts the Full professors, only. The picture shows that one female professor has a markedly higher salary than the other female professors. If this one observation is ignored the gender pay gap between male and female professors are statistically significant.

CBS PROFESSORS' (MSO) WAGE BY AGE AND GENDER


## ces professors' wage by age and gender



| 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## GENDER AND SALARY BONUS FOR CBS' FACULTY, 2017



The figure shows the gender composition among all CBS' employees in faculty positions (as Assistant Professor/post doc, Associate Professor, Professor MSO and Professor), applicants among these for salary bonus and receivers of salary bonuses, 2017.

At the level of Assistant Professor 47\% of the applicants for salary bonuses are women, while 55\% of the Assistant Professors employed at CBS are women. Among the group of Assistant Professors that received salary bonuses in $201743 \%$ are women. A similar pattern is seen at the Professor MSO level.

It is noted that there is no clear pattern from the 2017 salary bonus award

The figure shows that at the level of Associate Professor 47\% of the applicants for salary bonuses are women, while $37 \%$ of the Associate Professors are women. Among the group
of Associate Professors that received salary bonuses in 2017 48\% are women. A similar pattern is seen at the professor level with $18 \%$ female professors and $17 \%$ of the professors applying for salary bonus are women. Among the group of professors that received salary bonus in 2017 24\% are women.

## REPRESENTATION OF MALE AND FEMALE

 ADMINISTRATIVE STAFF AT CBS, 2017

## The figure shows the gender composition of the administrative staff in 2017

The figure shows that women constitute between $54 \%$ and $88 \%$ of staff employed in administrative positions at CBS, except for the position as head of administrative division (kontorchef), where women constitute only $27 \%$.


