

A comparative study of the scientific contribution of male/female researchers in the CSIC of Catalonia



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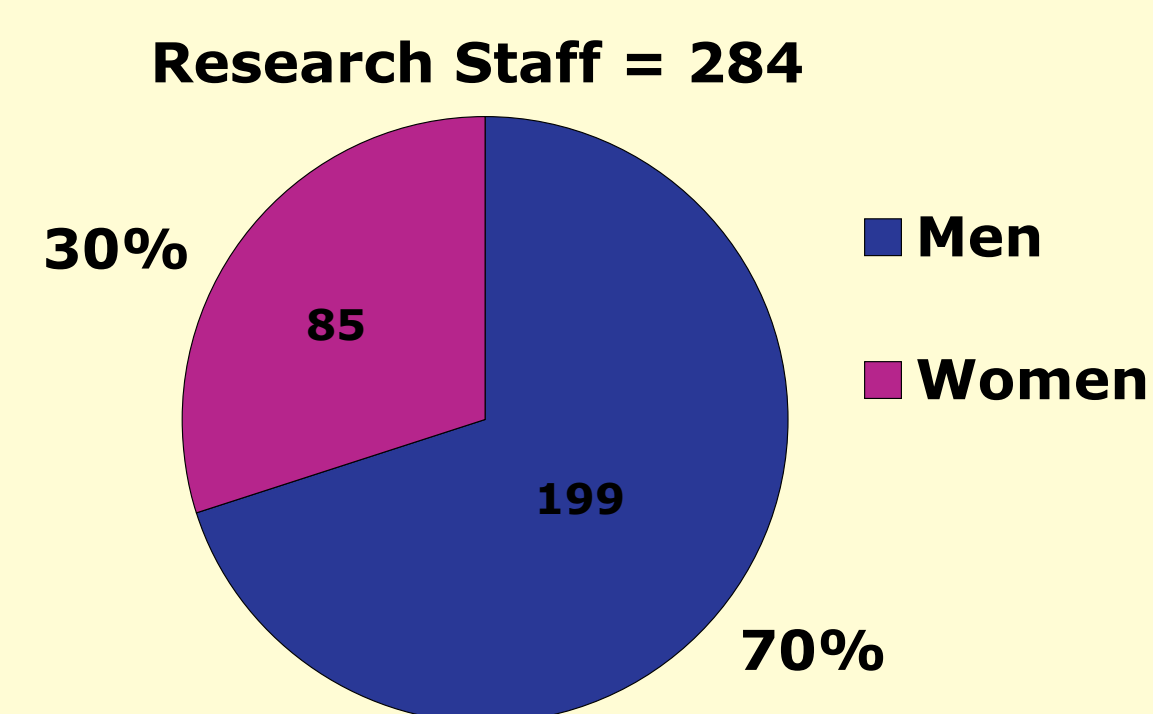


PURPOSE Recent studies at European level, such as the ETAN report*, demonstrate that women are under represented among researchers in all EU countries, and that they decrease drastically in higher research positions. In the Spanish CSIC, the progress of females into higher positions has been much slower than for males in the last decades. Our objective was to investigate whether lower productivity was among the reasons for this extremely slow progression.

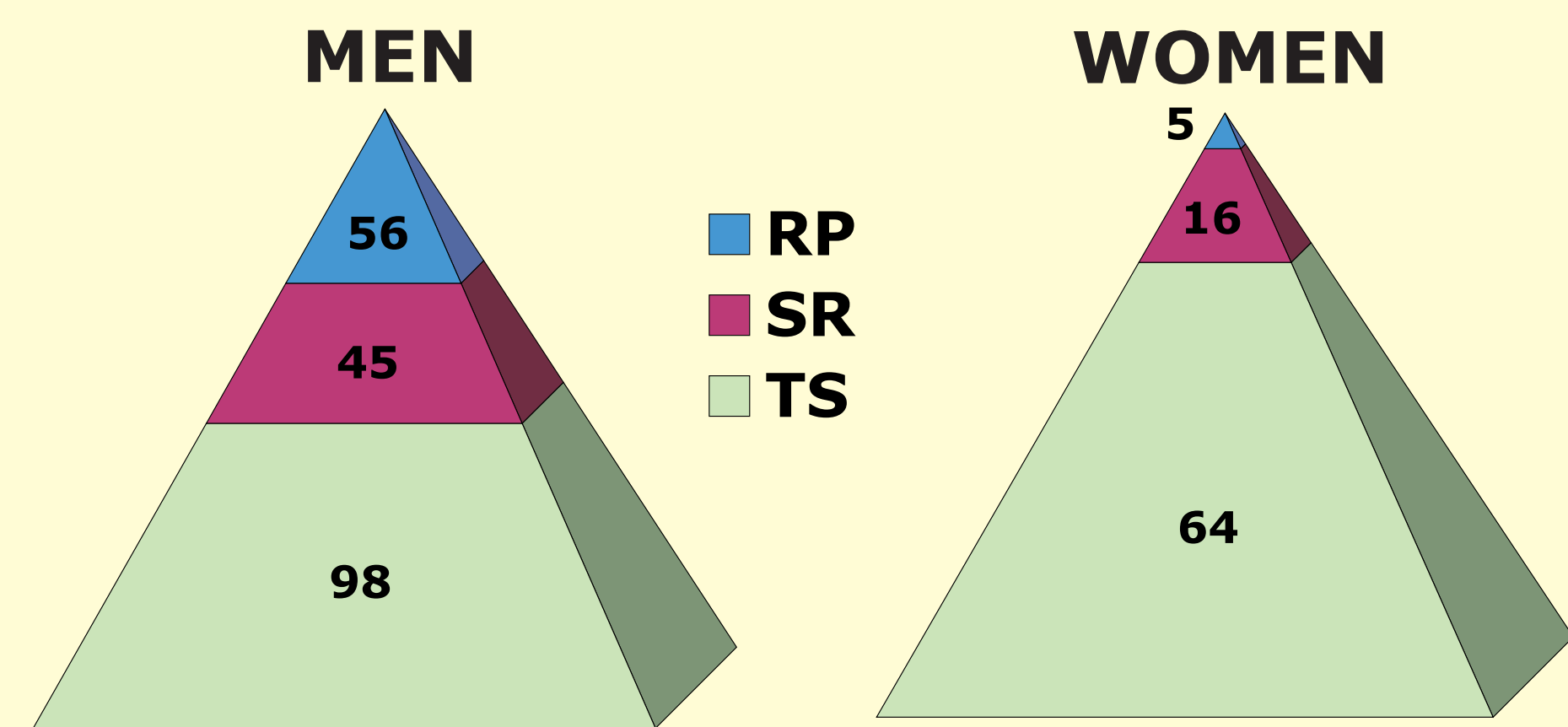
ETAN. *A Report from the European Technology Assessment Network on Women and Science*. European Commission Research Directorate General. Brussels, 2000.

CSIC - CATALONIA

There are 16 Institutes of the CSIC in Catalonia



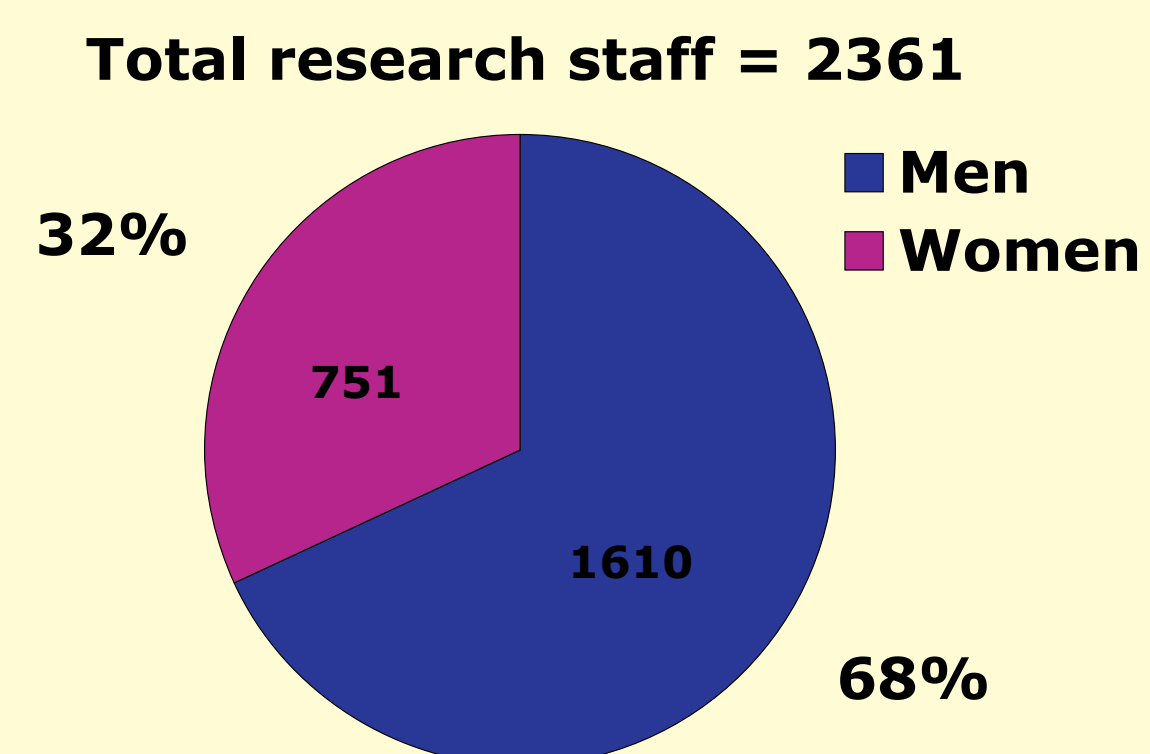
Number of male/female researchers at each level



CSIC - SPAIN

The Consejo Superior de Investigaciones Científicas is the largest governmental research institution in Spain.

Permanent research staff

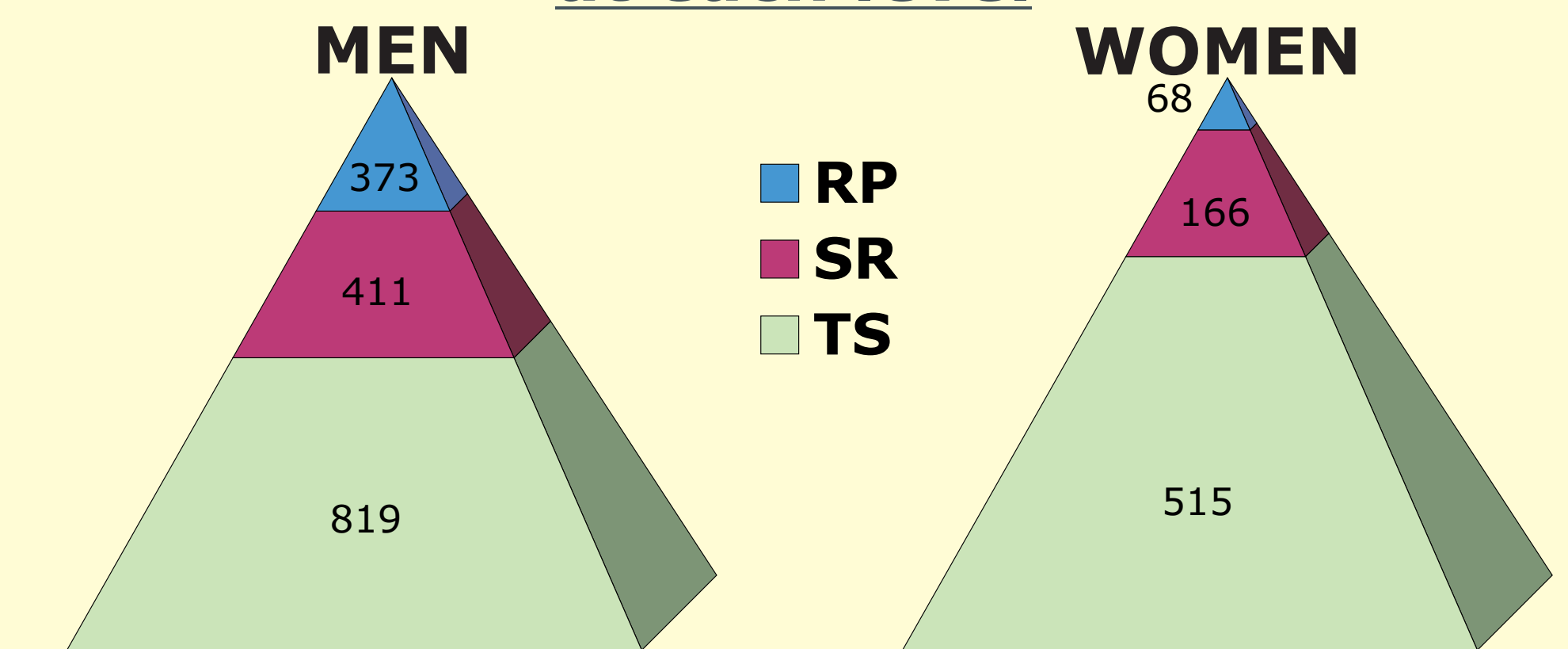


Data from "Mujeres Investigadoras del CSIC". September 2003, (<http://www.csic.es>)

The permanent research staff is organized in three levels:

Research Professor - RP
Scientific Researcher - SR
Tenured Scientist - TS

Number of male/female researchers at each level



Do female researchers have a lower "scientific production" that can explain their slow progression in the research career?

Calculation of production rate

The study considers 6 classes from the total group of researchers:

TS women	TS men
SR women	SR men
RP women	RP men

For each class we calculate the production of:

$$\text{articles per year and per person} = X = \frac{\sum_{i=1}^n N_i A_i}{N}$$

A_i : average of articles in institute I
 N_i : researchers in institute I
 N : total researchers in the class

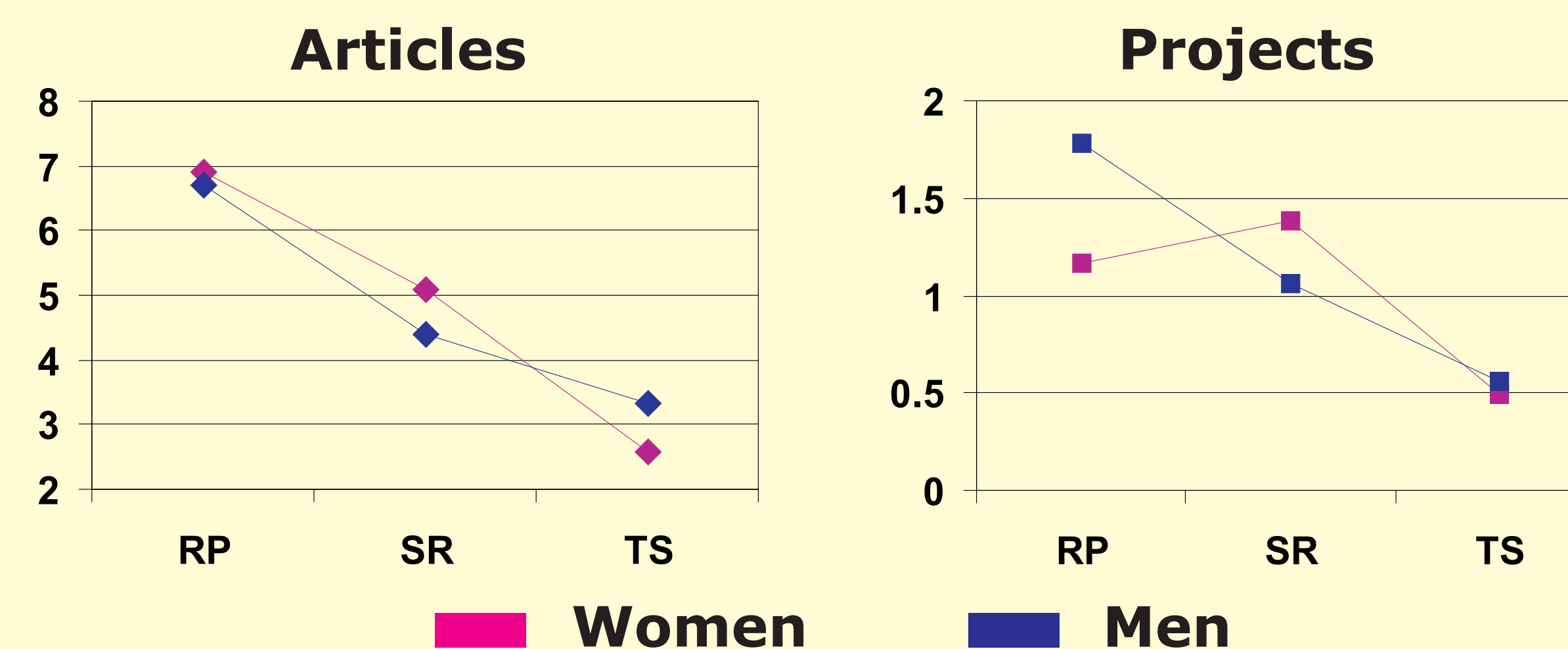
$$\text{projects per year and per person} = Y = \frac{\sum_{i=1}^n N_i B_i}{N}$$

B_i : average of projects in institute I

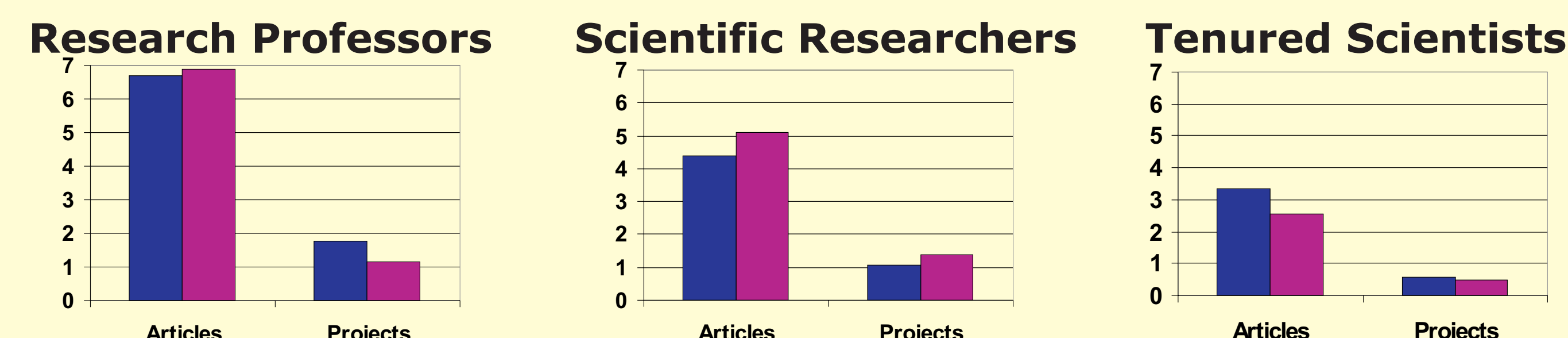
Data: from 1999-2002 (4 years),
Source: annual reports of the institutes

PRODUCTION RATE

Articles and projects (average per year and per capita)



Comparison of production rate between men and women at each level



CONCLUSIONS

- In the 16 Institutes of the CSIC in Catalonia 30% of researchers that hold permanent positions are women.
- Women do not progress to higher levels in the same way as men do.
 - The largest percentage of women concentrates at the lowest level and only 1/4 of them reach the highest position. 75% of the women are in the lowest rank of Tenured Scientist, 19% in the intermediate rank of Research Scientist and only 6% in the highest rank of Research Professors.
 - The distribution of men shows that 51% are in the two higher levels, 23% are Research Scientists and 29% Research Professors.
- The production rate of the researchers increases with the rank. This indicates that comparison between men and women production needs to take into account the different ranks.
- Our study indicates that there are not differences between men and women in their scientific production that might justify the difference in promotion to higher positions.

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