Women, Maritime Studies and the Merchant Navy

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Introduction

At this in Spain there are seven Nautical Faculties and Schools found in the maritime provinces of Barcelona, Gijón, Santander, Bilbao, La Coruña, Cádiz and Tenerife that have been offering Merchant Navy studies for quite a number of years.

These specialist centres are known as *Escuelas Superiores de la Marina Civil (Merchant Navy Schools of Higher Education).* Some of them have been integrated into the university framework becoming Nautical Faculties of the province where they are situated.

All of theses centres were teaching a common syllabus, established in the year 1977, that was structured into different subject matter for each department with a proprietary academic calendar. The syllabus was modified in the year 1995 but not in a homogeneous way. In some of the centres the reform of the teaching structure was adopted with the aim to become more integrated into the university community, dividing the contents of some subjects and changing the calendar and the attendance load of the different courses. In other centres the previous syllabus is still maintained, whilst others have suffered further modification including a new Plan in the year 2000. This is the case of the Nautical Faculty of Barcelona.

Such a difference has arisen among different Schools and Faculties that subjects and contents have lost their homogeneity.

Maritime studies provided in Spain have been divided into two cycles and several specialised courses. The first cycle ends when the Diploma Degree (license) has been obtained. This includes the specialisation of Sea Navigation and Naval Engineering, and has a durations of 3 years. The second cycle contemplates the same specialisation but lasts up to 5 years before acquiring a higher degree in Navigation and Maritime Transport or Naval Engineering. In the centres in Tenerife and Cádiz, another specialisation is provided called Naval Radio-Operator that also lasts 3 to 5 years, depending on the cycle chosen.

The presence of women in the old Nautical Schools has been non/existant for centuries up to the second half of the XXth century when a very slow integration started with a reduced number of women. The fight to access a sector socially considered as traditionally for men, has rewarded by the increasing presence of women in Maritime Education until a relatively constant position was reached although remaining a minority. During the last quarter century, it has been calculated that between 20 – 25% of the pupils accessing higher education cycles were women. Additionally the number of graduating female students reached 8% of the annual total.

Demand and Number of Students (Male/Female)

In spite of some faculties belonging to the University Community, the specific weight of the nautical centres compared with all other careers, the number of students accepted and its demand is not so large. Such a scarce index of students shows that this is a less massified career and society is less aware of its existence.

The different specialisations have had an oscillating demand but, in general, with a diminishing tendency. We can say that the number of students in different centres turns around 300 – 400, in some cases exceeding 600 and others less than 200.

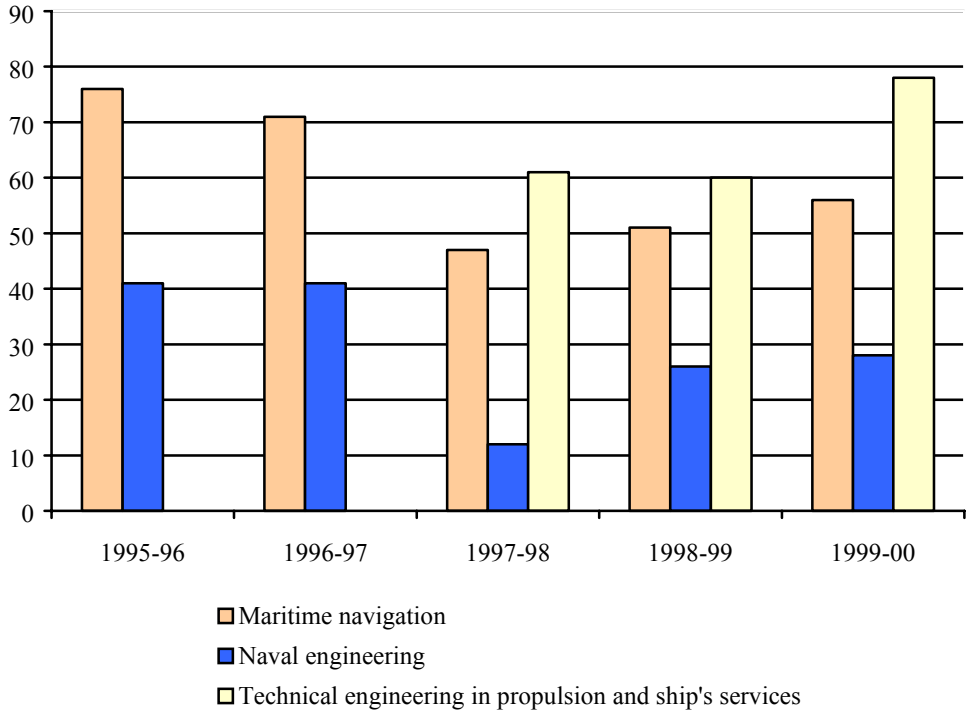
The advent of Plan 95 has provided a change in the way subjects are distributed, evaluation tools and the legislation. As an example of such changes it is especified that all students finishing some of the cycles are asked to obtain the proper diploma or degree before accessing a higher level. Due to this question, the number of students with finished studies has increased each year, even though Plan 95 is very recent in its implementation.

The Specific Case of the Nautical Faculty in Barcelona

The Nautical Faculty in Barcelona (F.N.B.), depending on the Universitat Politècnica de Catalunya (U.P.C.), teaches the specialisations of Maritime Navigation and Naval Engineering in their first and second cycles. However, in 1998 they offered a new career they call Technical Engineering in Propulsion And Ship's Services that, lasting for a period of three years, has been consolidated as the specialisation with the biggest demand amongst all the courses given at this centre. The current syllabus was established in 2000 and supersedes the previous Plan of 1995.

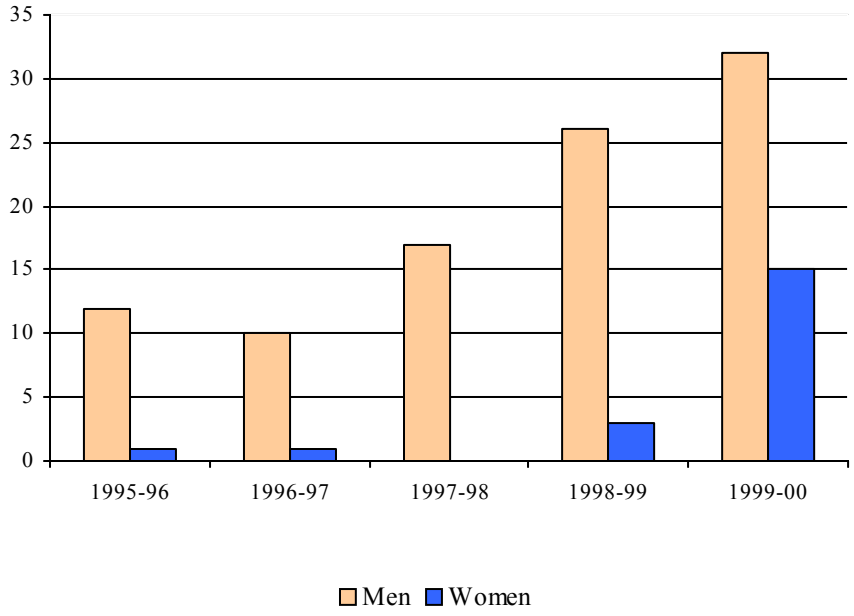
The demand of this new title over the last 4 years, has doubled the figures that up to this moment were maintained by existing specialisations. Taking a look at the way things are going it is obvious that the tendency is for continued increase.

Evolution of deman for studies in the Nautical Faculty in Barcelona



On the other hand, the number of graduate students has multiplied by three over these last 5 years, mainly due to the new legislation on diplomas in force with the Plan of 1995. Sush legislation has deeply influenced the graduates' age, reducing the average by more than 7 years in relation to the previous Plan of 1977.

Evolution of the students degree



Academic Perspective

In order to go further into the academic and professional perspectives of female students, studying the different specialisations in the Nautical Faculty of Barcelona, the SIRC questionnaire has been carried out. This questionnaire has been handed out to female pupils during the academic year 2001 – 02.

The global results obtained are summarised as follows:

- Roughly half of the female students did not choose Nautical Studies as their first option on their university career petition list.

- Amongs the reasons for choosing this specialisation are an interest in following an uncommon career or due to a scientific interest in the industry.

- Almost all the students are coincident that to join a ship could be a future working option, but no one assures that is what they will do.

- Their opinion on a professional future at sea depends on the possible shipping company involved.

- During the training period as cadets, in general they have felt accepted on board as another member of the crew.

- Most of them have detected attitudes of machismo and/or paternalism among the officers and petty officers on board.

- All the cadets consider themselves as on an equal level as the men for carrying out the responsibilities of officers and Master/Chief Engineer.

- Finally, most of them consider that the Spanish Merchant Marine is not ready to accept women in command, but step by step the mentality is changing for the better.

In general terms, the feel of the interviewer is reflected below:

- There are a lot of students with no family tradition in seafaring who access the studies of Naval Engineering and Technical Engineering in Propulsion and Ship's Services with the idea of establishing themselves in shore/based companies.

- In general, the opinion of the students about the academic level is not so good; considering that the subjects learned intend to select the students and not to create seafarers.

- During the training period, the students are accepted as a member of the crew. Officers and petty officers consider them as Able/Seamen because they have no responsibility. Outright machismo has been experienced and they have noted paternal attitudes creating situations that are sometimes not quite comfortable for them.

- Responsibilities carried out by ship's mates and engineers, are considered accessible for women on the same level as for the men, not establishing differences due to physical or other reasons. The students consider that the Spanish Merchant Marine is not ready to have women as officers. Even so, the tendency shows a change of attitude, most of all among the new generation of mates and engineers. It is noted that there is greater integration of women in the Sea Navigation specialisation and less in Naval Engineering.

The female section in the Civil Navy is now faced by relative change, slowly obtaining more responsibility on board ships, in terminals, shipping companies, etc. The general tendency in the university society established in Spain is adressed to more stringent needs, such as: to study

a recognised career, to graduate in 5 years and that such studies aford the person with professional stability in a relatively short period. These may be the reasons why Technical Engineering Studies have experienced such a demand. A short time of study (3 years) that is socially well thought of and a degree in engineering that opens a lot of professionl opportunities.

Evolution in the Demand and Number of Accepted/Graduated Students from 1995–96 up to 1999–00 in the Nautical Faculty of Barcelona

A publication has been edited using information from the Universitat Politècnica de Catalunya (U.P.C.) that covers the main statistical data of each faculty. This publication is titled "*Datos Estadísticos y de Gestión*"[1], and has been the main source of the data used to draw up the graphs in this document.

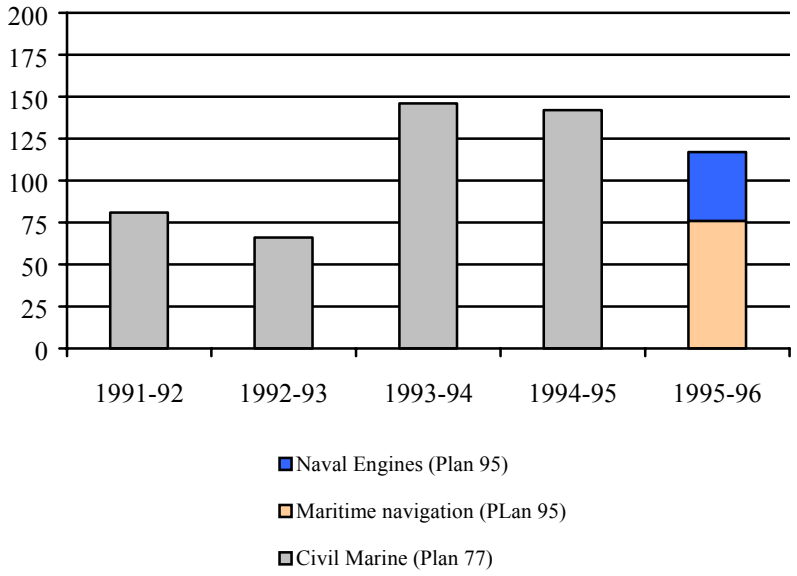
UNIVERSITAT POLITÈCNICA DE CATALUNYA (U.P.C.)
Statistical & Management Data
May 1996

Demand of Studies in the Nautical Faculty in Barcelona (Plan 95)

COURSE 1995-96 (Plan 95)	Diploma in Sea Navigation	Diploma in Naval Engineeering
Capacity (seats offer)	40	20
Demand in first option	76	41
Accepted students (New in first course)	43	35
Unsatisfied demand	33	6

Evolution of demand (Plan 77and 95)

[1] Statistical and Management Data



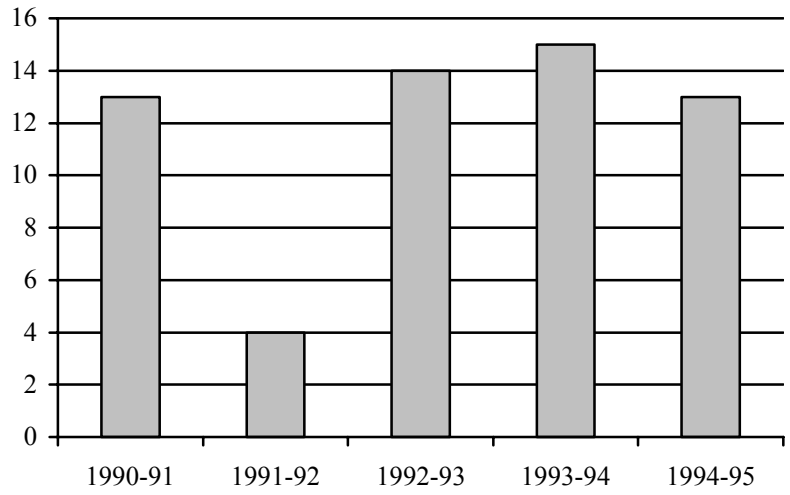
Distribution per sex second cycle (Plan 77)

	MERCHANT NAVY (PLAN 77)
Men	213
% Men	80.08%
Women	53
% Women	19.92 %
TOTAL	266

Students with finished studies (Plan 77)

COURSE 1994-95	**Distribution per sex**	**Number of degree**
Men	12	13
Women	1	
COURSE 1994-95	**Distribution per age**	**Age average**
25 years	4	29,15
26 years	1	
27 years	1	
>28 years	7	

Evolution of students with finished studies (Plan 77)

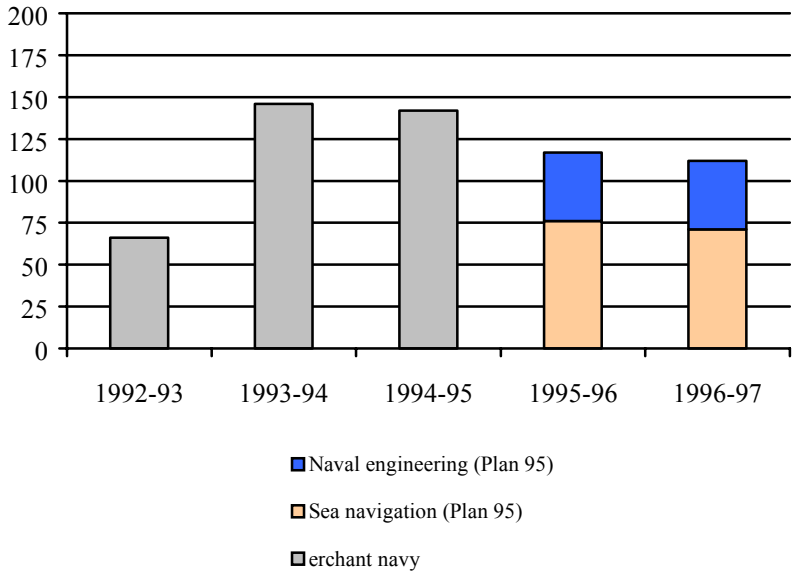


UNIVERSITAT POLITÈCNICA DE CATALUNYA (U.P.C.)
Statistical & Management data
May 1997

Demand of studies in the Nautical Faculty of Barcelona (Plan 95)

COURSE 1996-97	Diploma in Sea Navigation	Diploma in Naval Engineering
Capacity (seats offer)	40	20
Demand in first option	71	41
Accepted students (New in first course)	36	35
Unsatisfied demand	35	6

Evolution of the demand (Plan 77 and 95)



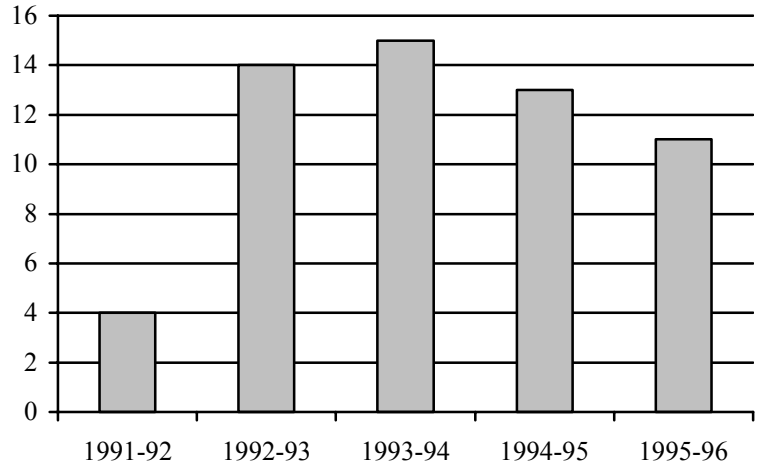
Distribution per sex, second cycle (Plan 77)

	CIVIL MARINE (PLAN 77)
Men	171
% Men	78,08%
Women	48
% Women	21,92%
TOTAL	219

Students with finished studies (Plan 77)

COURSE 1995-96	**Distribution per sex**	**Number of degree**
Men	10	11
Women	1	
COURSE 1995-96	**Distribution per age**	**Age average**
24 years	1	29,91
26 years	1	
27 years	1	
>28 years	8	

Evolution of students with finished studies (Plan 77)

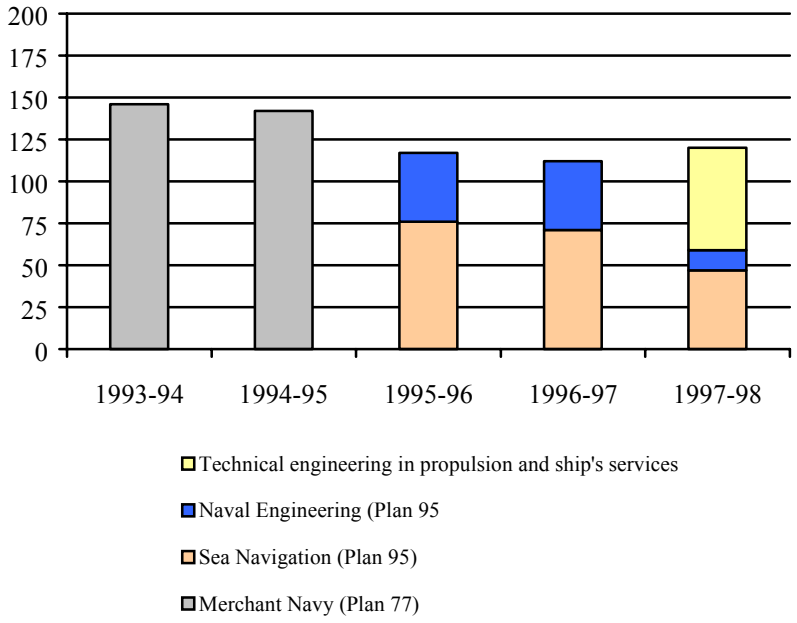


UNIVERSITAT POLITÈCNICA DE CATALUNYA (U.P.C.)
Statistical & Management data
May 1998

Demand of studies in the Nautical Faculty of Barcelona (Plan 95)

COURSE 1997-98	**Diploma in Sea Navigation**	**Diploma in Naval Engineering**	**Technical Engineering in Propulsion and Ship's Services**
Capacity (seats offer)	40	20	40
Demand in first option	47	12	61
Accepted students (New in first course)	41	20	40
Unsatisfied demand	6	-	21

Evolution of demand (Plan 77 and 95)



Distribution per sex second cycle (Plan 77)

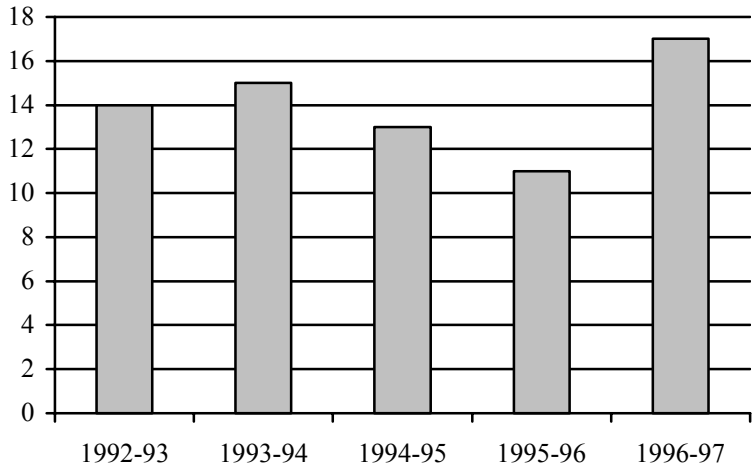
	MERCHANT NAVY (PLAN 77)
Men	133
% Men	76,88%
Women	40
% Women	23,12%
TOTAL	173

Students with finished studies (Plan 77)

COURSE 1996-97	**Distribution per sex**	**Number of degree**
Men	17	17
Women	0	

COURSE 1996-97	**Distribution per age**	**Age average**
24 years	1	30,24
25 years	1	
26 years	4	
27 years	2	
28 years	1	
>28 years	8	

Evolution of students with finished studies (Plan 77)

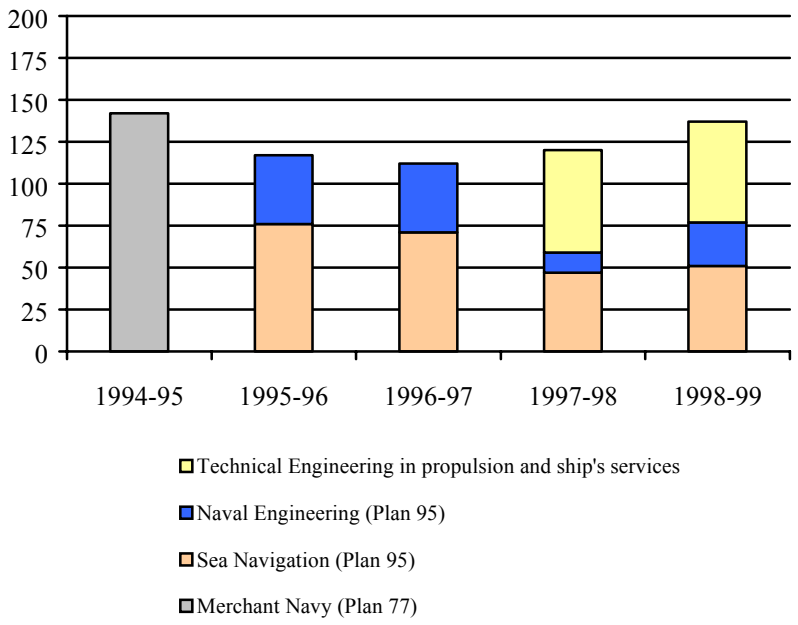


UNIVERSITAT POLITÈCNICA DE CATALUNYA (U.P.C.)
Statistical and Management data
May 1999

Demand of studies in the Nautical Faculty of Barcelona (Plan 95)

COURSE 1998-99	Diploma in Sea Navigation	Diploma in Naval Engineering	Technical Engineering in Propulsion and Ship's Services
Capacity (Seats offer)	40	20	60
Demand in firts option	51	26	60
Accepted students (New students in first course)	41	20	72
Unsatisfied demand	10	6	-

Evolution of the demand (Plan 77 and 95)



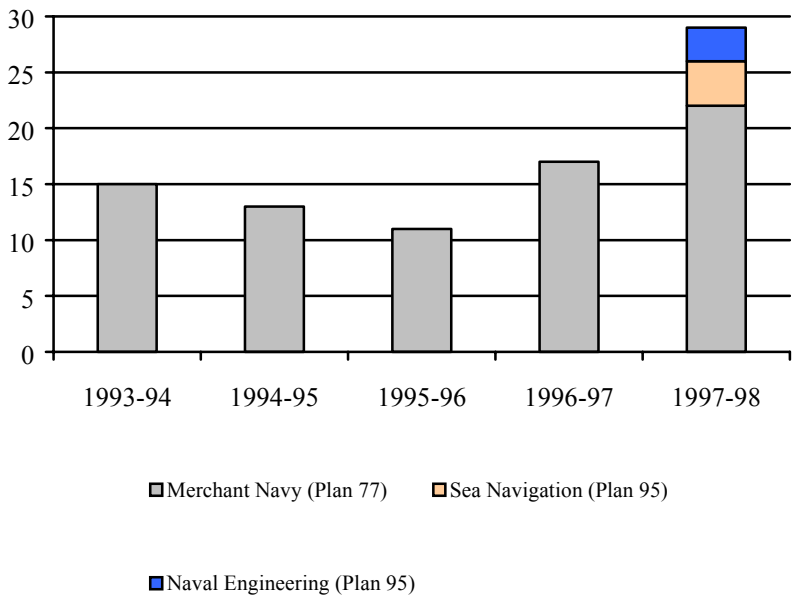
Distribution per sex second cycle (Plan 77 and 95)

	MERCHANT NAVY (PLAN 77)	Degree in Seamanship and Maritime Transport (Plan 95)	Degree in Naval Engineering (Plan 95)
Men	104	4	3
% Men	77,61%	66,67%	100%
Women	30	2	0
% Women	22,39%	33,33%	0,00%
TOTAL	134	6	3

Students with finished studies (Plan 77and 95)

COURSE 1997-98	**Merchant Navy (Plan 77)**		**Diploma in Sea Navigation (Plan 95)**		**Diploma in Naval Engineering (Plan 95)**	
	Distribution per sex	**Number of degrees**	**Distribution per sex**	**Number of degrees**	**Distribution per sex**	**Number of degrees**
Men	21	22	2	4	3	3
Women	1		2		-	
COURSE 1997-98	**Distribution per age**	**Age average**	**Distribution per age**	**Age average**	**Distribution per age**	**Age average**
<=21 years	1	32,05	2	21,50		23,67
22 years			2		1	
24 years	1				1	
25 years	2				1	
26 years	2					
27 years	3					
28 years	3					
>28 years	10					

Evolution of students with finished studies (Plan 77 and 95)

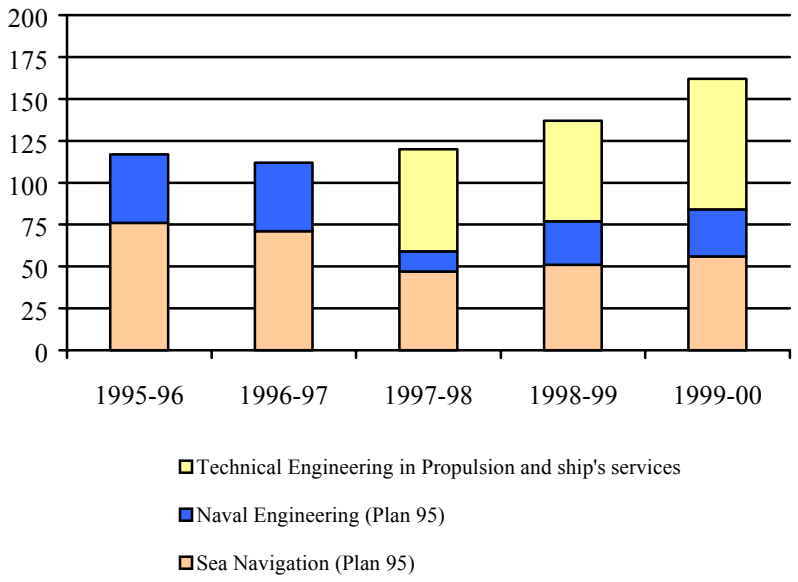


UNIVERSITAT POLITÈCNICA DE CATALUNYA (U.P.C.)
Estatistical & management data
May 2000

Demand of different specialisations in the Nautical Faculty of Barcelona (Plan 95)

COURSE 1999-00	Diploma in Sea Navigation	Diploma in Naval Engineering	Technical Engineering in Propulsion and Ship's Services
Capacity (seats offer)	40	20	60
Demand in first option	56	28	78
Accepted students (New students in first course)	43	21	71
Unsatisfied demand	13	7	7

Demand evolution of the studies (Plan 95)



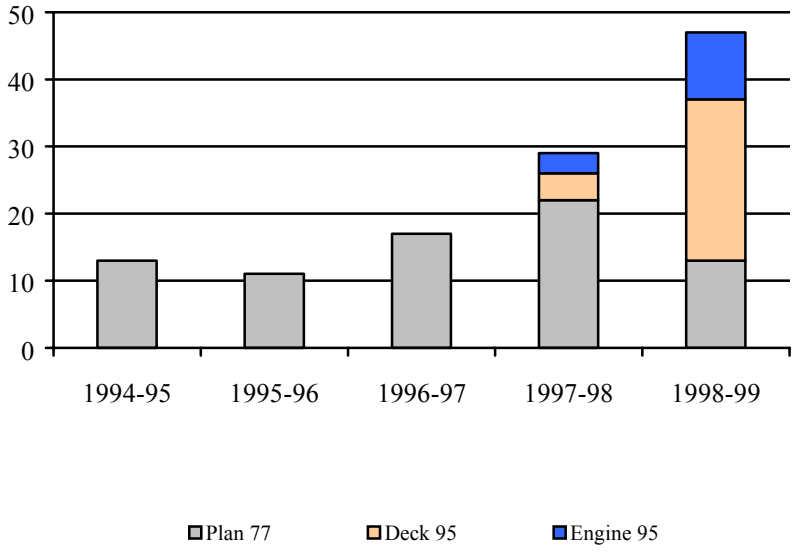
Distribution per sex, second cycle (Plan 77and 95)

	MERCHANT NAVY (PLAN 77)	Degree in Seamanship and Maritime Transport (Plan 95)	Degree in Naval Engineering (Plan 95)
Men	77	19	11
% Men	87,50%	67,86%	84,62%
Women	11	9	2
% Women	12,50%	32,14%	15,68%
TOTAL	88	28	13

Pupils with finished studies (Plan 77 and 95)

COURSE 1998-99	**Merchant Navy (Plan 77)**		**Diploma in Sea Navigation (Plan 95)**		**Diploma in Naval Engineering (Plan 95)**	
	Distribution per sex	**Number of degree**	**Distribution per sex**	**Number of degree**	**Distribution per sex**	**Number of degree**
Men	9	13	15	24	8	10
Women	4		9		2	
COURSE 1997-98	**Distribution per age**	**Age average**	**Distribution per age**	**Age average**	**Distribution per ages**	**Age average**
<=21 years		26,54	3	23,00	3	22,70
22 years			6		2	
23 years			9		1	
24 years	1		2		3	
25 years	1		3		1	
26 years	7					
27 years	1		1			
28 years						
>28 years	3					

Evolution of the pupils that acquired the degree and diploma (Plan 77 and 95)



Professional Perspectives

In the worldwide Merchant Navy professional arena, there is a chronic lack of mates and engineers with enough training to fulfil the requirements established by the I.M.O. This is mainly due to the working and living conditions on board ship that have not been helped by the appearance of convenience flags that tend to have less qualified personnel and lower safety levels than in state flagged ships.

Seafarers today suffer under a complex situation that is contemplated with a passive attitude by most administrations and that is made worse by the owner needs to reduce costs (at all costs?).

In the Spanish Merchant Navy, female officers have existed on some ships for over 10 years but they can hardly be considered representative. To become a Captain or Chief Engineer is a very complicated matter and overcoming the hurdles of traditional thinking in shipping companies proves to be an uphill job.

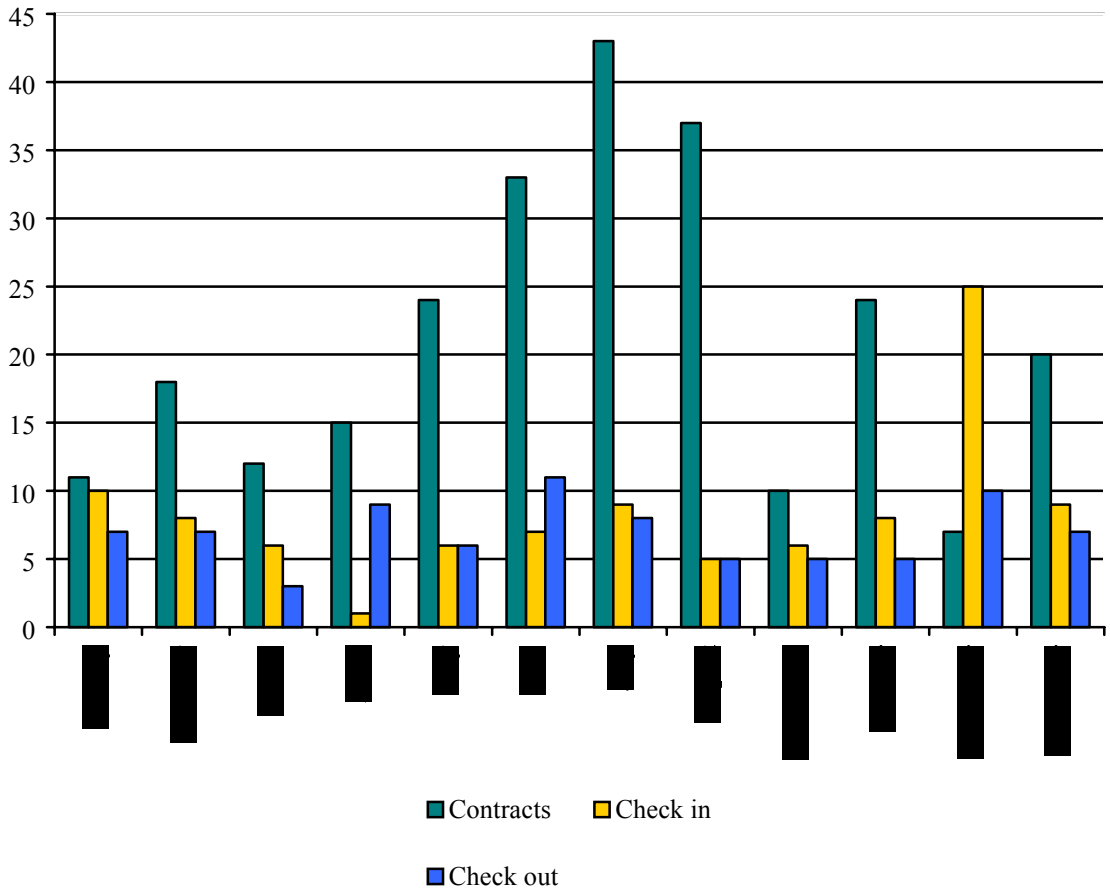
The general attitude is of rejection of integrating into a closed society (ship) the fact of men receiving their orders from a woman. There are also other factors such as maternity that is a classical excuse for a lot of shipping companies when faced with choosing their on board personnel. This circumstance will often decide female pupils to switch to a shore based job, as soon as they realise that the professional role of a seafarer is not compatible with a family life.

Today, there are shipping companies that do not accept female cadets as they feel it would provoke a tense situation on board or that they would not be able to cope with possible dangerous situations, or destination ports may be conflictive with the presence of women on board. Even so, there are other shipping companies that encourage the incorporation of women as officers on their ships because they consider them very necessary to aid in the much needed reform of the merchant navy.

From data kindly provided by the "*Departament d'Ocupació de la Generalitat de Catalunya*" (Department of Labour of the Catalonia Autonomous Government) established in the Marine Social Institute (I.S.M.) in Barcelona during the year 2000, it seems that there is a constant relationship and interaction between women and the shipping industry.

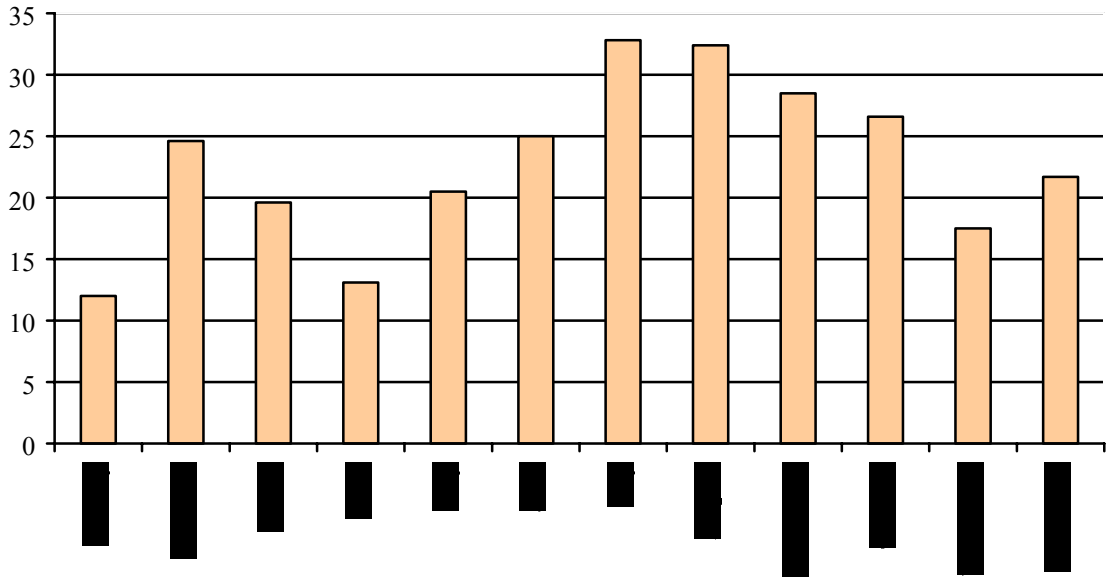
In the coastal and interior waterways waterborne transport, the following values have been noted:

Checks in, out (of the ISM service) and contracts during the year 2000 in the I.S.M. of Barcelona



From the registered total during the year 2000, the female presence in this sector oscillates around 20% as may be appreciated from the following graph:

Female representatitvity percentage during the year 2000



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