The Women in Greece – Working and Developing the Surveying Profession

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Key words: Studies, New-technologies, Gender

SUMMARY

This year Greece celebrates the 51 years of the foundation of the Hellenic Association of Rural and Surveying Engineers and in the same time there are 45 years from the day that the first woman Surveyor Engineer in Greece obtained her diploma (in 1959).

The surveying profession and because of the field works wasn't very attractive for the women. Through the last 2 decades, our profession changed a lot, especially at the field of the working conditions due to the new technologies, and there is a two-way relationship between women surveyors and the profession's development.

This paper aims to present the Hellenic situation in the past and in now days, to give emphasis to the difficulties that a woman has to face out working as a surveyor, and also to analyze why and how the statistic indicators, concerning the genders, became much better today.

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1. INTRODUCTION

Greece is one of the countries that the majority of the students in surveying field is still male, the same as it is at the professional level.
Last years, the statistic numbers prove that something happened which gave very good reason to female candidates to choose that field of studies.
There were no activities by governmental or non-governmental organizations that they tried to encourage in this direction. Changes became by themselves, as the definition of surveyor engineer for the Greek inhabitants seems to be more attractive as he is the engineer who uses mostly new technologies and also has very low percentage of unemployed.
It is also very common to meet Greek women surveyors that they are very successful professionals.

2. SURVEYOR'S PROFILE

2.1 General Description

According to a research that the Association of Greek Women Engineers done in 1999, the professional identity (stereotype) of surveyor engineer, it seems that on an imaginary level, the specific profession is a "masculine" one. More explicitly, the pen portrait imagery through the use of projective techniques of the "surveyor engineer" is described as follows:

- Man, in his late thirties
- Physical condition
- Positive, reliable
- Technocrat, rational
- Synthetically approach
- Dynamic, passionate
- Very organised and quite inflexible

The surveyor in the modern working environment, seems that it has been upgraded, due to the new technologies and to the new demands.
In specific the "new surveyor" becames to seem more and more with manager and has to fulfil the following professional requirements:

- *"technical" skills*: solid scientific background, specialisation, permanent training, foreign languages, information technology, consulting
- *"communication"* skills: team spirit, ability to deal with technical and non-technical staff, marketing
- *"strategic skills":* responsibility, dedication, readiness, crisis management

– *"employee skills":* availability, flexibility, mobility

2.2 Female Surveyor's Profile

The modern working environment as it is mentioned above, gives better opportunities to the female surveyors than in the past.
Some of the new requirements are totally identical with the feminine side:

– Communication, team work, marketing, sense of harmony
– Responsibility, reliability, rationality, dedication, organization

The Greek female surveyor is also " well educated", and specialist in new techniques.
The disadvantages of a woman are the low flexibility in timetables and mobility due to her family duties.
It is important to mention that the social supply concerning sufficiency of kindergartens isn't good enough till nowadays.

3. FEMALE SURVEYORS THROUGH THE YEARS

In Greece there is a big number of university-educated citizens in proportion to the population. Surveyors are not an exception, so the total number of surveyors till the end of 2003 was 5863, the 4373 of them are men and the 1490 are women.

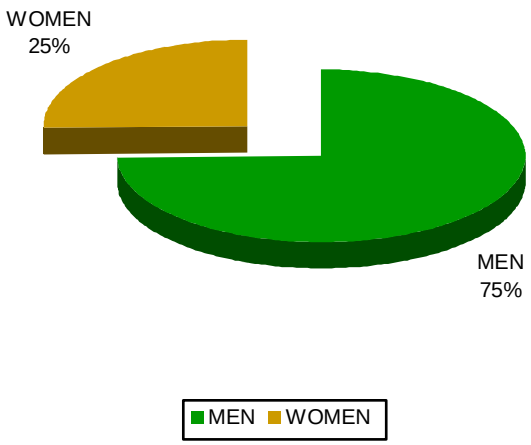


Figure 1: The two genders' proportion

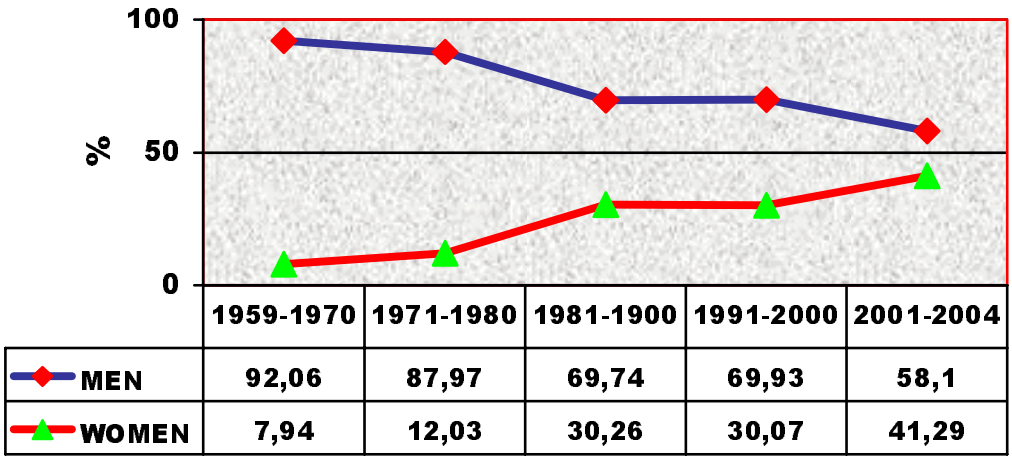
3.1 The First Traditional Years

The first lady obtained her diploma in 1959, means she entered to the polytechnic university in 1955.
The past years, beginning in 1959, devided in decades, and studied the improvement of the female numbers, through the numbers of qualified surveyors.

In the first decade the percentage number of female graduates was about 7,94 % and in the second decade this increased in 12,03%.

The first women surveyors had to face out with a really hard profession, which included field works with heavy geodetic instruments, and movements in hard conditions.
They also had to take care by themselves the guarding of their children due to the non-existed social care in this field. As the family bonds were very constant, it was possible to count on them.
The difficulties guided most of them who graduated till the end of seventies to follow a carrier in Public Sector.

As it is seen at the following figure, there is a big gap at the decade of eighties, as females suddenly approached the 30%.



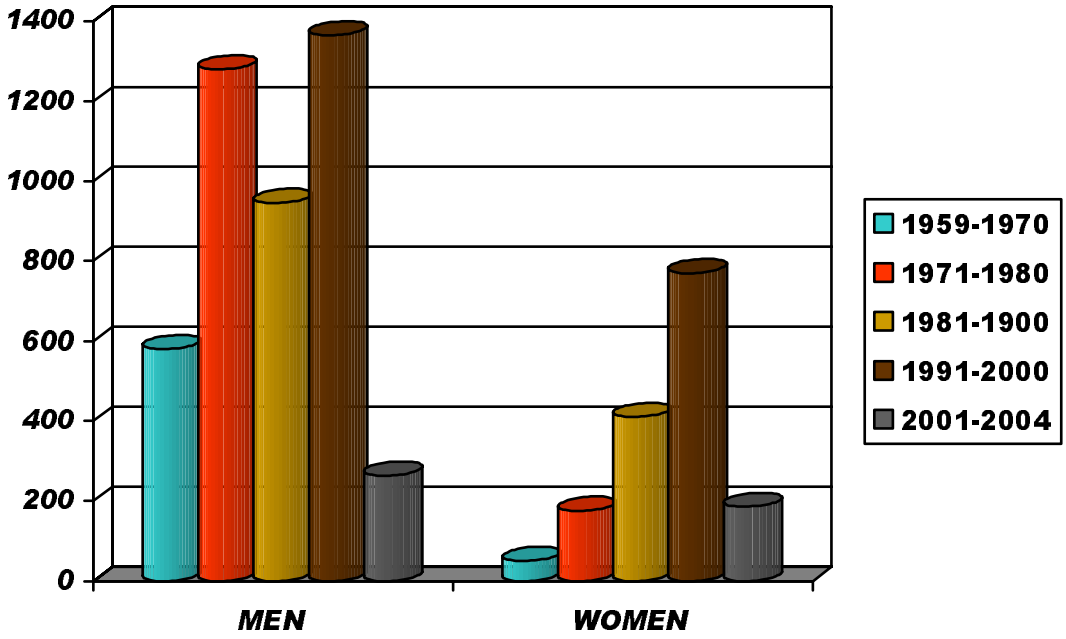
	1959-1970	1971-1980	1981-1900	1991-2000	2001-2004
MEN	92,06	87,97	69,74	69,93	58,1
WOMEN	7,94	12,03	30,26	30,07	41,29

Figure 2: Increasing females' percentage indicators

It is very important to mention that from the second part of the seventies, much more women than usually began to study and especially concentrating to non-traditionally female fields, as it happened with surveying science.

3.1 The Years of Changes

In the beginning of the next decade (eighties), it is the informatics' revolution that changes the rules, and surveyors were the first engineers that involved with computers' use. They began use them in their diary activities, and done the calculations faster and easier.



	1959-1970	1971-1980	1981-1900	1991-2000	2001-2004
MEN	580	1280	945	1365	263
WOMEN	50	175	410	770	185

Figure 3: Actual numbers of graduates.

New technologies changed the rules in photogrammetry, introduced the digital photogrammetry, the remote sensing methods, the GIL/LIS, and of course the management of all these masses of data.
Even the geodetic instruments became modern, faster and less heavy than in the past (total stations, GPS).

The two technical universities followed the changes and they offered to the students (in time) all the necessary education to be "modern engineers", in the beginning of the 21st century.
So year-to-year the profile of the Greek Surveyor changed and also changed the market demands and the necessary skills.

The last decade (nineties) is marked with the beginning of the implementation of the Hellenic Cadastre, which based in a lot of new kind of works for the Greek market, and in use of the most modern techniques. It is noticed that the majority of the surveyors having a responsible position, in sub-projects were young women, well educated and with special female skills, necessary for all those complicated works.

A surveyor now has to spend more time for processing and manage data than product data in the fieldwork.

Traditionally, in the same time that men were at the field works, women were in the office and in support works. In the past this was a disadvantage, but women working at the office had the sense to understand immediately all the advantages that new technologies were given. They also became the "mothers spirit" of the companies and they developed their managerial abilities.

It is proved that they had a special skill to combine the cadastral data (topographic data, legal issues, special local conditions, communication with citizens and authorities, develop e-solutions etc).

As the most women involved with new technologies to give better opportunities to their professional position, the new technologies have accepted faster from the surveyor professionals. This was a two-way development between females and profession.
It seems that surveyor engineers lead now in this field in Greece and this is something that can't be changed.

Many ladies are now very successful professionals (owners of companies, managers, academics, directors etc.), and this creates an attractive image of the female surveyor that encourages more and more young girls to choose this field of studies.

4. SUCESS OF FIFTY-FIFTY

As it is analyzed above, all the factors direct to the total convocation of the percentages numbers representing the two genders.

We can propose the following actions to guide on it:
- Total adaptation of new technologies at the universities' plans, although in Greece studies in technical universities are already very good.
- Amelioration of the social supply for the woman who works

Concluding we talk about a modern profession that can be a "two genders profession", with a lot of opportunities and that offers the necessary flexibility to follow the new incomes, in a world that walks with big steps.

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BIOGRAPHICAL NOTES

Eleni Tziortzioti, has graduated from the Faculty of Rural Surveying Engineering of the Polytechnic School of Aristotle University of Thessalonica in 1990. She is member of the Board (and Financial Director) of the Hellenic Association of Rural & Surveying Engineer (HARSE) since 1997, and also is member of the Technical Chamber of Greece (TCG).
She is member of the Association of Greek Women Engineers.
She was involved as private company's partner in the implementation of Hellenic Cadastre Project at Lefkada Island at 1995. She worked for a few years as supervisor engineer, for the Hellenic Railways in construction section and also for the Ktimatologio S.A. in a few HC projects. Since 2002 she joined to the Hellenic Ministry for the Environment Physical Planning & Public Works at the Secretariat of Urban Planning.
In 2003 she was elected as the first President of the Union of Engineers of the Ministry for the Environment Physical Planning & Public Works.
For the period 1992-1994 she was member of the European Commissions' Affairs Committee of the Technical Chamber of Greece.
Since 1997 she corresponds to the FIG activities as representative of HARSE and TCG and since 2001 she is delegate in FIG Commission 7.
She is married and mother of one child.

Anna Karagiannaki, has graduated from the School of Rural Surveying Engineering of National Technical University of Athens in 1976. She is member of the Board (and Vice President) of Hellenic Association of Rural & Surveying Engineer (HARSE) and also member of Technical Chamber of Greece (TCG). She also represents HARSE for Cadastral issues in a multi-scientific committee under the TCG's umbrella.
Since 1977 she works in privacy in studies section and specialized in geomatics and in the roads' and highways' design. She is responsible for at the Implementation of HC Project at Etoloakarnania Prefecture, and for the period 1987-1990 she worked as consultant for the Municipality of Ano Liosion Attica and organized the cadastral section and the urban design section.
In 1993 –1994, she was member of the TCG Committee for the Cadastre.
In the past she was member of the following committees of the Technical Chamber of Greece: 1. 1996-2001 Cadastre Com., 2. 1989-1997 Local Authorities and Regional Development Com., 3. 1981-1985 European Commissions' Affairs Com.
In 1975-1976 she was president of the Students' Association (School of Rural Surveying Engineering N.T.U.A.)
She is mother of three children and she has a granddaughter.

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