

WOMEN AND SCIENCE: Review of the situation in Israel

Abstract

This report reviews fact and figures regarding women in science and technology in Israel, updated to November 30, 2000.

Section 1 of the report presents the recently established National Council for Women in Science and Technology and its activities.

The sections, which follow review the status of women in science in Israel in three areas:

Section 2: Education - facts and figures related to the process of career development, from birth until the stage of formal professional training in appropriate courses of study;

Section 3: University sector - facts and figures related to the career of women scientists in institutes for higher education;

Section 4: Non-academic science and technology careers - facts and figures related to the career of women scientists in industry and in the Israel Defence Forces.

Finally, Section 5 provides an overall summary of the report.

1. National Council for the Promotion Women in Science and Technology

Following the European Parliament's decision of February 3, 2000 and in keeping with the Helsinki group's recommendations, Professor Hagit Messer-Yaron, Chief Scientist of the Ministry of Science, Culture and Sport, in co-operation with the Authority for the Advancement of the Status of Women in the Office of the Prime Minister, established, on April 30, 2000, a council responsible for promoting the role of women in science. This council will establish links with the Helsinki group in order to help in the creation of a European information network.

On November 20, 2000, the Government's Committee for Science and Technology decided to endorse the council and to grant it formal status as the National Council for the Promotion of Women in Science and Technology.

The council is composed of:

- ❖ Female chief scientists of government Ministries: today, there are 4 women serving as chief scientists (out of a total of 11): Professor Hagit Messer-Yaron, Ministry of Science, Culture and Sport; Professor Zmira Mevarech, Ministry of

Education; Dr. Orna Bergerzon, Ministry of Environment; Professor Bracha Rager, Ministry of Health.

- ❖ The head of the Science and Technology Authority in the Ministry of Education, Ms. Yafa Vigodsky, and other representatives of the Authority.
- ❖ Mr. Shalom Ben-Moshe and Mr. Shimon David of the Israel National Institute for Technical Training (NITT).
- ❖ The Commander of the Israel Defence Forces Women's Corps, Brigadier Suzy Yogev, and other representatives of the Women's Corps.
- ❖ Ms. Ronit Silon, chairperson, and Ms. Ruti Gorenstein of the Women Industrialists Forum.
- ❖ Women in leading management positions in industry.
- ❖ Representatives of volunteer groups for women: Dr. Haya Jamsky, Director General, the Israel Women's Network (IWN), and Ms. Bela Cohen from the Department for the Status of Women of WIZO (Women's International Zionist Organization).
- ❖ Representatives from university women's studies programs.
- ❖ University professors, mainly in fields related to science and technology.
- ❖ In general - men and women alike with a special interest and involvement in strengthening the role of women in science.

All told, the council has about 50 members.

The aims of the council are to:

- a. Serve as a network linking adult and adolescent women in science and technology;
- b. Be a contact point for problems related to women's role in science;
- c. Collect information about programs promoting women's role in science;
- d. Propose and implement programs which will promote women in science;
- e. Raise public awareness regarding the state of women in science;
- f. Co-ordinate between public and private initiatives for the advance of women's involvement in science.

The council has identified two major, inter-related problems concerning women in science and technology in Israel:

1. the limited number of women involved in industrial R&D and hi-tech activity – which calls for encouraging adolescent and adult women to go into these fields (education);
2. the difficulties facing women scientists and engineers in their attempts to advance to higher positions in the workplace (mainly in industry and in the academic sector).

In order to prepare and decide on programs, the Council has been divided into 3 committees, each acting in a specific domain:

1. encouraging girls to choose a career in science and technology;
2. promoting the careers of female scientists in industry;
3. promoting the careers of women in the academic sector.

Activities

Since established, the Council has met regularly, on a monthly basis. Each of the committees has met at least once.

The Council has already taken concrete steps towards the realisation of two of its goals:

- ❖ The Council set up a network in which women from different fields of science and technology could meet and get to know one another and learn of each other's activities and programs.
- ❖ The Council held a conference on "Women and Science", aimed at raising public awareness regarding the relevant issues.

2. Education

The first meetings of the committee on encouraging women to choose R&D careers were dedicated to mapping the different organisations which act to increase the number of women in scientific and technological studies. The committee also discussed the definition of the target population to be addressed: should the focus be on the high-school years, or on a life-long process beginning in kindergarten and continuing into the working years. It was decided that the committee would cover elementary schools, high schools, army service (compulsory in Israel) and the technological colleges: in sum, the entire educational process until a profession is acquired.

In the following, we review several programs currently being implemented in Israel. However, since any career in science and technology requires background in mathematics, we first review the figures regarding girls and mathematics learning. In Israel, in order to be awarded a high school matriculation certificate, which is a prerequisite for higher education, one needs to pass a mathematics examination at the average (3 points), advanced (4 points) or highly advanced (5 points) level. The following table shows that most girls take low (3 points) or average level math, which is an inherent disadvantage to the development of a career in science and technology. However, since at all levels girls' scores are better than those of boys, it is clear that the innate ability of girls relative to boys is not the reason for the small proportion of girls choosing to be tested at the higher levels of math. Social and psychological reasons would seem to lie behind this phenomenon. Some of the programs for encouraging women to enter careers in science and technology try to deal with this issue.

Number of 12th grade students (1999)

	age group in population	number of students in 12 grade	Graduates	graduates %
Boys	53,500	39,278	18,631	47.43
Girls	50,700	43,949	24,489	55.72

Mathematics 1999

	Percentage tested in math				Percentage passing			Percentage passing with honours		
	3 points	4 points	5 points	total	3 points	4 points	5 points	3 points	4 points	5 points
boys	51.8	26.6	21.7	77.5	84.9	94.2	95.5	31	41.9	52.4
girls	59.7	26.8	13.5	80.4	88.6	96.2	96.5	41.2	51.7	54.7

Program 1: “The Future Generation of Hi-Tech”¹

The program operates under the auspices of Ms. Ruti Gorenstein, Director General of LaRouche Investments

In Israel today, both hi-tech industry and the armed forces suffer from a growing lack of appropriately trained scientific and technical workers. In light of this shortage,

¹ This program is an initiative of the Science and Technology Authority in the Ministry of Education's in co-operation with The Women Industrials Forum of the Manufacturers Associations of Israel.

emphasis is being placed on women's unexploited potential to join the workforce in R&D professions.

The goals:

1. to bring about a change in the attitudes of women regarding the choice of a career in science and technology.
2. to encourage students, especially girls, to choose science and technology oriented tracks in high school. This will serve as a first step in training them for two different options for further education:
 - a) Academic study towards degrees in engineering or exact sciences at the universities and other accredited institutions;
 - b) An additional 2 years of study beyond the regular 12-year high school framework so as to obtain an engineering technologist's diploma, with an option to complete a B.Tech academic degree at one of the technological colleges.
3. to strengthen students' identification and involvement with and positive attitudes towards industry as the practical expression of technology's contribution to the improvement of standards of living and social welfare in modern society.
4. to encourage women to choose to do their military service in technology-related jobs.

Work Plan

This innovative project is an initiative of the Forum of Female Industrialists of the Manufacturers' Association, and is run by the Science and Technology Authority of the Ministry of Education and the Commanding Officer of the Women's Corps of the IDF, together with the Association for Industry-Community Relations of the Manufacturers' Association.

The Forum and the Science and Technology Authority have designed a program for the junior high schools, which encourages students in general, and female students in particular, to aim for a career in science and technology. The project began in September 1997 in 7 junior high schools. One class from each school worked on co-operation with an industry which "adopted" the pupils. This year there are 23 partnerships between industries and junior high schools throughout the country. In each partnership a special program has been developed linking industrial activities to the basic science and technology curriculum of the junior high schools.

The program includes activities designed to change the atmosphere in which choices of study tracks and careers are made. Thus, it includes:

- ❖ Counselling activities for students and teachers to raise awareness of the possibilities open to women in industry, and to change stereotypical images of “male” and “female” professions.
- ❖ Field visits to industrial facilities where the pupils are exposed to the modern work environment. This measure is essential in order to bring about a change in the stereotype of “blue collar” jobs.
- ❖ Information activities directed at parents, who have great influence on their children's choice of a course of study, regarding the industrial world and its advantages, with emphasis on its benefits for women.
- ❖ Meetings with female industrial executives who lecture on their work and serve as role models for girls.
- ❖ Activities with high schools (grades 11 and 12) regarding military service, in which female soldiers serve as role models.

Program 2: The Israel Women’s Network²

The Israel Women’s Network, with the collaboration of the Ministry of Education, the Israeli Defence Forces (IDF), and the National Institute for Technology Training (NITT) have initiated a program for eleventh graders, which aims at changing perceptions of and attitudes towards women. The program began operation in 2000.

The project will:

- ❖ Provide extensive knowledge on the subject of inequality between the sexes – its reasons and consequences.
- ❖ Enhance self-consciousness to self-perception to increase self-confidence. (Low self-esteem is one of the psychological factors identified as preventing adolescent girls to choose a scientific and technological track).
- ❖ Increase awareness of women’s abilities and potential contribution to the financial, political, technological and military worlds.

The topics to be addressed by the program include social and psychological aspects of women’s standing in society; the place of women and men in the armed forces, in the work environment, in the R&D-based economy and in politics.

² This program is not limited to the issue of women and science, but deals in general with the social and psychological factors influencing young girls’ choice of educational tracks.

Program 3: “GES” project: Girls to Engineering Studies³

This project aims to increase the number of high school girls who study mathematics and physics at the level required to make possible enrolment in university degree-level engineering studies. The goal is to help girls get better grades in **advanced and highly advanced** levels mathematics and physics studies and to encourage them to consider enrolment for an engineering degree and future employment in engineering and technology.

The project is based on several component activities:

- a. training math teachers to head the project in their schools;
- b. identification of underachieving pupils, and provision of help to improve their grades, especially in math – by providing support aimed at strengthening their self-esteem and improving their learning skills
- c. acquainting target pupils with professions and the courses of study required entering them.

In schools, which took part in this program, the number of girls in math classes tripled over a period of three years, with average grades among girls higher than those of boys.

Program 4: Israeli Defence Forces (IDF)

In Israel, service in the armed forces is mandatory. Men and women are drafted after high school, when they reach the age of 18.

The IDF has two main instruments for the preparation of qualified scientific and technical manpower. Many of those who will fill scientific and technical roles are called up, and then trained during the course of their military service. Alternatively, relatively small numbers of high potential high school graduates are enrolled in programs, which enable them to postpone the beginning of their military service until they have completed their studies at a technological college or university.

In the IDF, the Women’s Corps is responsible for special programs for women. Some of these programs are designed to encourage women to go into technological careers,

³ By Ms. Yael Rom, Idorom Science & Technology LTD. initiated by the Ministry of Education.

while others are designed to help women to advance their career in the military in general⁴:

- ❖ Women officers and soldiers filling technological positions visit schools to speak before pupils (boys and girls) and teachers on engineering and technological service in the army. These officers and soldiers are instructed to give special emphasis to the role of women in the IDF. The appearance of female representatives of the military, involved in technological activities, is aimed at providing a role model for girls facing conscription. This program has been active since 1997.

- ❖ The Army invites pupils to visit military installations to learn about various service options, including technological duties. Girls are separated from the boys, and meet with an officer from the Women's Corps, who encourages them to enter one of the technological frameworks.

Despite these activities, the number of women receiving deferments in order to undertake technological studies before their military service is low and has actually declined over the past two years, as seen from the following table...

Women as percent of total deferments granted to make possible pre-service engineering studies					
	1995	1996	1997	1998	1999
Total deferments	500	460	530	480	560
Women as % of total deferments	10	10	13	9	6

Program 5: The National Institute for Technological & Hi-Tech Training

The electronics and other high-tech industries and start-up companies are the leading growth engine of the Israeli economy in the information age. These enterprises absorb thousands of technologically qualified employees at all levels of education.

⁴ The latter programs are described in Section 4.

Colleges for practical engineers have become a significant factor in training the workforce. In the period 1997-2000, the number of students in these colleges rose from 18,000 to more than 24,000. However, only 28% of the students are women. Trying to improve the situation, the NITT ordered a survey, which was conducted by Dr. Dina Doron, which showed that:

- ❖ Although high school girls are successful in university-run science enrichment activities (“Science Oriented Youth”), girls constitute only 35% of total enrolment overall, and their relative weight in the exact sciences and technological fields is even lower.
- ❖ This situation is self-reinforcing: women are afraid to enter a domain in which they are a distinct minority, and thus the situation is perpetuated.

In Doron's survey, female students were asked what might encourage them to go into technological studies. The factors cited were as follows:

- 93% - tuition and scholarships
- 90% - help in finding work after graduation
- 85% - help in finding work during school
- 81% - encouragement for girls in high-school to learn technological subjects
- 81% - day care centres
- 75% - advertising of technological subjects aimed at women

A number of additional ideas have been suggested, which may assist in attracting girls to technological studies:

- ❖ Postponing the military service of girls studying in the practical engineering track, as for university-level training.
- ❖ Day care for infants at the technological colleges.
- ❖ Orientation/recruiting tours of the colleges for girls
- ❖ Retraining elementary and high schoolteachers in the practical engineering tracks.

The following tables give the updated distribution of women in different fields of technological training.

Women's preference in Technological Colleges by Subjects 1999-2000		
Subjects	number	%
Software engineering	2579	39.68
Industrial & management engineering	1288	19.81
Architecture	756	11.63
Pre-engineering	469	7.21
Electrical engineering	347	5.33
Civil engineering	187	2.87
Chemical engineering	175	2.69
Photography systems	152	2.33
interior decoration engineering	122	1.87
Preparatory course for immigrants	100	1.53
Biotechnology engineering	73	1.12
Industrial design engineering	66	1.01
Print technology	63	0.96
Landscape architecture engineering	53	0.81
Environment engineering	40	0.61
Mechanical engineering	24	0.36
Agricultural engineering	2	0.03
Instrumentation & control	2	0.03
Geodetic engineering	1	0.01
Nuclear engineering	0	0
Air-conditioning engineering	0	0
Teaching engineering	0	0

3. University Sector

The Forum for the Advancement of Women in Academia

The Forum is a group of female professors representing all seven Israeli research universities and several BA-degree-granting colleges (a new development in Israel's higher education system). The Chair of the Forum is Professor Nina Toren of the Hebrew University in Jerusalem.

The idea of establishing a Forum for the Advancement of Women in Academia was raised by MP Anat Maor, Chair of the Knesset Committee on Science and Technology, and MP Yael Dayan, Chair of the Knesset Committee on the Status of Women. The Forum works closely with the National Council for Higher Education and with the Chief Scientist of the Ministry of Science, Culture and Sport.

Today, women constitute 22% of tenure-track academic staff and hold 9% of professorial appointments. The goal of the Forum is to place gender equality in institutions of higher education on the public agenda, and bring about increased recruitment of women to the academic staff and their promotion to professorial rank.

To achieve these ends, the Forum undertakes a number of activities. It:

- ❖ collects and publishes statistics on women's careers in academia, comparing the data on women with those relating to their male colleagues.
- ❖ develops programs providing support for young women undertaking graduate studies.
- ❖ makes recommendations to university administrators and others regarding the steps to be taken to reduce gender imbalance in higher education;
- ❖ works to increase the participation of women in the decision-making bodies of the institutions of higher education;
- ❖ works to bring about the appointment of a woman professor as adviser to each university's president or rector on issues pertaining to gender inequality.

General

Women faculty comprise a small minority of the total tenure-track faculty in Israel's seven research universities, with somewhat larger minorities in the humanities and social sciences and very small minorities in the physical sciences and engineering.

Women's rank distribution is in the shape of a pyramid—large numbers are concentrated in the lower ranks, while only a few are at the top of the academic hierarchy. In addition, women are over-represented in off-tenure tracks (temporary,

part-time, parallel, and “other” posts), in which they comprise between one-third and one-half of the total.

This general pattern is evident in many western countries, and although Israel has been frequently portrayed as a relatively more gender-equal society, it prevail in this country too.

<i>Recipients of Univ. Degrees, by field of study and sex 1999</i>								
	<i>Engineering & Architecture</i>	<i>Agriculture</i>	<i>Natural science & mathematics</i>	<i>Medicine</i>	<i>Law</i>	<i>Social science</i>	<i>Humanities</i>	<i>Total</i>
male	1871	138	1678	480	701	3648	1649	10165
female	456	148	1326	1115	540	4921	5136	13642

<i>Women Faculty at the universities Levels</i>										
	<i>1988-89</i>		<i>1991-92</i>		<i>1994-95</i>		<i>1997-98</i>		<i>1998-99</i>	
	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>
Professor	31	4.7	88	7.3	107	7.8	132	8.6	140	8.8
Associate professor	58	8	153	13.8	179	16	212	18.7	222	19.9
senior lectures	190	17.3	340	29.8	364	30.8	409	33	400	32.2
Lectures	266	29.9	225	37.3	236	34.7	255	36.7	281	39.5
Total	546	16.2	806	19.9	886	20.4	1008	21.9	1043	22.4

Research Grants

A review of the research grants awarded by 3 major research funds shows that the percentage of women among grant recipients is, in general, lower then the percentage of women among applicants. The following tables provide the figures from the US-Israel Binational Science Foundation (BSF) and from the Israel Science Foundation (ISF).

<i>Women as a percentage of BSF research grant applicants and recipients</i>						
	97/8		98/9		99/2000	
	<i>Applications</i>	<i>Grants</i>	<i>Applications</i>	<i>Grants</i>	<i>Applications</i>	<i>Grants</i>
Medicine	16.9	14.3	12.3	11.5	17.4	
Biology	17	15	14.6	10.3	18.9	
Physics, Chemistry, substances	5.8	8.3	5.5	3.5	7.6	
Math. & computers	6.3	2	7.8	5.9	10.1	
Nature & environment	9	8.8	8.8	4.5	7.7	
Sociology & Psychology	24	18.2	23.5	21.4	30.9	

<i>Women as a percentage of ISF research grant applicants and recipients</i>												
	1995		1996		1997		1998		1999		2000	
	<i>App.</i>	<i>Win.</i>	<i>App.</i>	<i>Win.</i>	<i>App.</i>	<i>Win.</i>	<i>App.</i>	<i>Win.</i>	<i>App.</i>	<i>Win.</i>	<i>App.</i>	<i>Win.</i>
Exact science & technology	5.48	5.6	4.33	6.89	5.1	2.23	4.28	5.55	5.76	3.49	6.59	4.1
Medicine & life science	16.59	15	17.63	16.83	19.12	20.93	16.3	17.35	18.8	13.55	21.88	18.93
Humanities & social sciences	21.17	13.04	19.23	25	17.61	18.51	15.73	9.83	18.42	14.89	33.03	27.02
Others	10.84	8.86	6.48	5.49	10.88	9.73	9.27	6.77	11.11	12.62	14.86	12.98

The most prestigious scholarship for young scientists in Israel is the Alon Scholarship. It is awarded on the basis of academic merit alone. Alon Scholarship winners are guaranteed tenure-track positions in a research university. The following table provides figures regarding women's place in this program. It shows that women receive much fewer scholarships than men, both in absolute numbers and relative to the number of applications in most fields.

Alon scholarships - women as percentage of applicants and of scholarship recipients						
	1979 - 1992		1993 - 2000		1987 - 1989	
	Applicants	Recipients	Applicants	Recipients	Percentage of Israeli women recipients of Ph.D. degree	
					Israeli degree	U.S. degree
Humanities	31.6	29.6	29.7	22.9	45.8	42.1
Social sciences	22.1	14.2	16.8	22.6	45.7	38.2
Life sciences	25	19.7	16.1	15.4	51.6	39.6
Mathematics, physics & engineering	8.1	3.1	10.3	10.1	19.6	12.8

4. Non-academic science and technology careers⁵

This section is devoted to non-academic careers of women scientists in the high-tech and traditional industry, and in the Israeli armed forces (IDF).

4.1 Survey of Women Managers in Hi-Tech Industry

A survey on the status of women in hi-tech, covering nearly 220 companies, was conducted in August 1999, and its results were compared with those of a previous survey carried out in 1996. Among the findings:

- ❖ The number of female managers in hi-tech industry is growing rapidly. In the last three years, the number of female managers increased 2.5 fold, from 900 in 1996 to about 2,200 today. All told, women constitute about 20% of managers in this field, up from 14% three years ago. However, most female managers in High-Tech industry are in human resources or finance departments, e.g. – non-technical ones. Therefore, as suggested by Zahava Simon, Chair of the Manufacturers' Association's Forum for the Advancement of Women Managers in Hi-Tech Industry, this growth can be explained by the overall increase in the number of people employed in hi-tech companies.

⁵ This chapter was prepared by the Women Industrialist Forum

- ❖ Currently, 68% of electronics and software companies employ at least one women manager, in comparison to 48% three years ago.
- ❖ The average monthly salary of female managers has increased by 11% since 1996. However, the average salary of a male manager is generally higher.
- ❖ The number of firms employing at least one female manager is higher in electronics (76%) than in software (60%).
- ❖ Three-quarters of the female managers in the fields of electronics and software have an academic degree.

4.2 Women Executives in Industry

In 1998 an amendment to the Companies Act was approved, according to which “A company in which the entire board of directors is of the same sex, and the position of one of its directors from the public is vacant, will have at least one director from the public of the opposite sex”. Thus, every public company listed on the stock exchange should have at least one woman on its board of directors.

This amendment has had a significant influence on the number of women in managerial positions, particularly in industry. However, despite the increase brought about by the new law, women’s representation in boards of directors is still very low – about 17.5%.

In 1998, at the request of the Manufacturers Association of Israel, the Women Industrialists Forum carried out a research project encompassing 175 of its members. The main conclusions of this study were as follows:

- ❖ The proportion of female executives in industry has increased from 16% in 1994 to 20% in 1997.
 - 46% of female executives have a BA degree, while 12% hold a MA or Ph.D.
 - 66% of the female executives with academic degrees have a degree in social or management sciences, 24% in natural sciences or exact sciences and 7% in humanities.
- ❖ The increase in the number of female executives has not been matched by equalisation of their terms of employment with those of their male counterparts. Women's wages are relatively low, and only one third of the women executives receive special benefits (a car, car maintenance, etc.) compared with half to two-thirds of male executives.
- ❖ The survey does not indicate any substantial difference in the evaluation of the performance of male and female executives. However, it indicates that differences were found between men and women regarding a number of characteristics. Women executives were considered to have a certain advantage

in human relations and level of motivation. Men, on the other hand, were considered to have a certain advantage in professionalism, assumption of responsibility and decision-making.

- ❖ According to the interviewees, the main reason for the small number of women in management positions is women's lack of time, due to the need to take care of the family.

4.3 Women Scientists and Engineers in the I.D.F.

Female officers pursuing careers in the military face the same difficulties as female managers in the civilian labour market.

The following table compares men and women engineers in the IDF. It indicates that female officers in engineering roles are mostly in the lower ranks, both professionally and formally (30% of academic professional officers, but only 0.4% senior academic officers; 29% of lieutenants, 0% of colonels).

Engineers in career service by ranks								
	<i>Academic Professional</i>		<i>lieutenant</i>	<i>Captain</i>	<i>major</i>	<i>Lt. colonel</i>	<i>colonel</i>	<i>brigadier</i>
	<i>Officer</i>	<i>Senior Officer</i>						
men	70	99.6	71	94	88	97	100	100
women	30	0.4	29	6	12	3	0	0

The Women's Corps has initiated several programs intended to promote female soldiers and to support them in their careers:

- ❖ Workshops on empowerment, assertive action and women's status for junior officers – in co-operation with the centre for Women's Studies of Haifa University.
- ❖ Workshops with a psychologist from the Centre for Women's Studies on feminist theories for female soldiers posted to duties previously filled only by men
- ❖ Workshops on career planing for high-ranking female officers, with emphasis on combining career and family.

The following table gives the distribution of women engineers in the IDF:

<i>Women in engineering duties, by field (%)</i>	
Computer science	42
Electrical engineering	19
Mathematics	14
Industrial & management engineering	10
Physics	5
Civil engineering	5
Mechanical engineering	3
Space and aeronautical engineering	2
Electro-optics	0
Computer engineering	0
geodetic engineering	0

4.4 Private sector enterprises – Intel’s employment policy as a case study

Intel's Israeli operations have opened labour force recruitment to candidates with any previous work experience or with a background of studies in social sciences or humanities, not limiting candidates to those with technical qualifications only. Technical training is provided in-house, as required, to those hired. This step was taken to guarantee diversity of skills and outlook in the company's workforce.

Although this is not an affirmative action program aimed at women, it has brought more women to the company. In the 3 years since this program was initiated, the number of women employed by Intel has risen from 17% to 22%.

5. Summary and Conclusions

In this report we have briefly reviewed the current situation concerning women in science in Israel. The report provides statistics, which show that women are, in general, under-represented in science and technology at almost all levels and in almost all fields. It also scans some of the on-going programs for promoting women in science and technology.

For the first time, in 2000 the Ministry of Science, Culture and Sport, in collaboration with the Authority for the Advancement of the Status of Women in the Office of the

Prime Minister, decided to “make things happen”. First, a National Council for Women in Science and Technology has been established and is already active, as described in Section 1. Also, the Ministry of Science, Culture and Sport has recently initiated a special scholarship program in which undergraduate students in engineering and exact sciences can get a yearly stipends of NIS10, 000 (about EUR 2,500), in return for not less than 100 hours of service in National Council programs aimed at promoting women in science. Examples of such activities are:

1. Meetings with high school students and other groups where they can serve as role models.
2. Tutoring schoolgirls in mathematics and sciences.
3. Helping in the organisation of conferences and other events.

We hope that as a result of all the efforts described above, Israel’s national report for 2001 will show better achievements for women in science and technology.

Acknowledgements

The report is based on information provided by the following:

- ❖ Ms. Ronit Askenazi, Science and Technology Authority, Ministry of Education;
- ❖ Mr. Shalom Ben-Moshe, Israel National Institute for Technical Training (NITT);
- ❖ Ms. Haya Jamshy, Director General, Israel Women's Network;
- ❖ Ms. Ronit Lev-Ari, Director, The Authority for Advancement of the Status of Women in Israel;
- ❖ Mr. Zohar Mimon, Intel;
- ❖ Ms. Yael Rom, Idorom Science & Technology LTD.;
- ❖ Ms. Ronit Silon, Chair, The Women Industrialists Forum;
- ❖ Lt. Colonel Merav Stern, Women's Corps, Israel Defence Forces;
- ❖ Prof. Nina Toren, Business School, Hebrew University.

Data and statistics were provided by:

- ❖ Israel Central Bureau of Statistics;
- ❖ Council for Higher Education;
- ❖ Bilateral (US-Israel) Science Foundation;
- ❖ Israel Science Foundation.

We wish to express our thanks for the co-operation of all those mentioned above.

A special word of thanks is due to Dr. Shira Shofty, head of the Science oriented Youth program of Tel Aviv University for her contribution and notes.

Last, we thank Dr. Neal Sherman for his editorial help.

Helsinki Group on women and science

30.11.2000

Israeli national report by

**Professor Hagit Messer-Yaron, Chief Scientist & Ms. Shirley Kahanovich,
Consultant, Ministry of Science, Culture and Sport**