ISRAEL ADVANCED TECHNOLOGY INDUSTRIES (IATI) AND KAMATECH PRESENT:

THE HAREDI HIGH-TECH REPORT 2020

Kamatech

Israel Advanced Technology Industries

WORDS OF WELCOME

Attny. Karin Mayer Rubinstein
CEO and President of the Israeli Advanced Technology Industries (IATI)

High-tech's standing as a market leader in Israel's economy is a fact about which there is wide consensus and just about anyone can cite the encouraging data and offer up actual numbers which testify to the constant growth of the industry. Nonetheless, not many are able to speak adequately about the spirit and vision which is at the heart of the IATI.

We at the Israeli Advanced Technology Industry have set as our primary goal the promotion of an organized, planned policy encouraging innovation and entrepreneurship that will contribute to Israel's economy. The key to success lies in bold cooperation with public and private organizations, as well as persistent and continuous cooperation with senior professional and political echelons in governmental institutions.

Israel's high-tech industry is, today, capable of serving as a pillar for the modern-day Zionist enterprise. Israeli society is composed of many different groups and the need to strengthen the bonds of cooperation amongst them is an immediate and essential challenge. The main obstacle to growth faced today by the high-tech industry lies in the lack of skilled human manpower.

Israel's population is made up of secular, Haredi (ultra-religious), Arab and Druze sectors. The integration of members of all these populaces into Israeli society is an essential task undertaken by the high-tech industry which can provide the answer to this national challenge.

The high-tech industry is a meeting point for these diverse groups that compose Israeli society.

While each group can and should maintain its unique nature, culture, beliefs and lifestyles, the joining of forces and cooperation in the fields of economy and high-tech is essential so that Israel can continue as a nation of innovators and as a global promoter of initiative. In order for Israeli high-tech to keep on growing, it is crucial to find the correct means for fostering and increasing cooperation with other sectors in the population who are currently under-represented in the industry. It is our responsibility to bring into play Israeli initiative and innovation, as well as a spirit of solidarity, to this challenge of bringing about employment diversity and to finding the correct formula for integrating the capabilities of each populace in Israeli society, in order to lead the Israeli economy and high-tech into the future.

Many throughout the world have spent a lot of time and effort trying to crack the code of Israel's innovative capabilities and much has been written about the recruiting of great minds who contribute to the strength of the industry. The eyes of the entire world are upon us, often in amazement.

The same courageous spirit instilled in those who drained the Land of Israel's swamps during the first half of the 20th century, becoming a symbol of the Zionist enterprise, is that strength which is present today in the Israeli high-tech industry. Currently, the industry of advanced technologies not only provides a source of income and impressive benefits to the country's economy, but also fulfills a vision as a symbol of a united, consolidated and strengthened Israeli society.

As pioneers, we know how to calculate and take risks. As pioneers, failure is not an option but rather merely a marker on a long, determined road. As pioneers, we know how to bring about the integration of forces and to consolidate the many layers of Israeli society.

This is how groundbreaking technology is born.

Moshe Friedman, Founding Partner and CEO KamaTech

In 2011, together with a number of partners, young Haredi entrepreneurs, I attempted to establish a technology start-up. Coming from the Haredi world we lacked contacts in the world of high-tech and innovation and felt like outsiders who stood out in the crowd. At that time there were no Haredi high-tech entrepreneurs in Israel and barely any Haredim were employed in the large high-tech companies.

That same year I met by chance Dr. Yossi Vardi, considered to be one of the fathers of Israeli high-tech. I told him about my initiative and the fact that I had no contacts in the entrepreneurial and high-tech world and no one to whom I could go for help. Yossi told me he'd be glad to help, not only myself, but also any other Haredi entrepreneurs who might be interested. Yossi advised me to establish a coalition of large high-tech companies and investment funds which would work to assist Haredim entering into the high-tech world. He introduced me to Zika Av-Tzuk of Cisco and together we began to advance the project, eventually becoming KamaTech.

Before starting out my partners and I, young Haredi entrepreneurs from the very heart of the Haredi community, consulted our rabbis and approached some of Israel's most influential religious leaders in the Haredi community in order to receive their blessings and advice. We then appointed a committee of rabbis with whom we could consult about each step taken in order to determine that we were on the right path, one also approved by some of the greatest religious leaders of the time.

During this same period of time my partners and I met Prof. Amnon Sha'ashua, founder of Mobileye and Orcam and one of the the State of Israel's greatest high-tech entrepreneurs. Amnon came on board completely, becoming an advisor, teacher, mentor and enthusiastic supporter of the initiative. Together with Prof. Sha'ashua we held a series of meetings with Israel's influential religious leaders in order to receive their guidance and blessing.

Over the years we have created various programs which have proven very successful in the field of innovation and the establishment of start-ups, as well as in the training and placement of Haredim in large high-tech firms. One can say that these programs were the first to open doors for Haredim in the big high-tech firms, as well as introducing the field of start-ups into the Haredi world. We established a center for high-tech and start-ups in B'nai Brak which works on a mehadrin (strictly Kosher and according to Jewish laws) basis in cooperation with the biggest high-tech firms in the world. We set up an investment fund together with 80 major Israeli high-tech leaders and even with a number of major high-tech players on the global scene, whose goal was to invest in Haredi start-ups, and in cooperation with the Israeli Advanced Technologies Industries (IATI), along with 20 of the biggest high-tech firms in Israel and a forum of seminar heads, we established a national program for girls enrolled in Haredi seminars.

All of the above occurred thanks to the tremendous support given by some of the major names in Israeli high-tech and by the heads of large companies who pitched in to assist with their knowledge, resources and endless good will.

As the startups thankfully progress and grow, and as we hold more and more discussions with government policy makers and with representatives from the world of philanthropy, it becomes clear regarding the need for creating a central data base which would gather all the material on the field of Haredi high-tech - the numbers, the trends, the successes and challenges, identification of the active players are in the field, the division of work among them - in order to create a comprehensive image of data which, until recently, did not exist. Though some aspects of the information had been published here and there, there was nothing organized or comprehensive. The purpose of this report is to create, for the first time, an organized data bank to concentrate the data and figures about Haredi high-tech.

The report not only documents the meteoric progress of Haredi high-tech in the past decade, but also highlights the challenges it faces in the decade to come.

I would like to thank all our partners in this project who have helped us along the way: Prof. Amnon Sha'ashua, the Israeli Advanced Technology Industries (IATI), the United States Embassy in Israel, the Maimonides Fund, the Russell Barry Fund, the Steinhardt Fund, The Jewish Federation

of New York, the Ministry of Finance, Cisco, Google, Facebook, Weston Digital, Checkpoint, Bank Leumi, Bank HaPoalim, Ernst & Young, Meitar, Menorah Securities, DLA Piper and other partners who wish to remain anonymous.

I hope that this report will serve as a comprehensive source of information that will assist decision makers in acting productively for the promotion of Haredi high-tech, and that the surge we witnessed in the previous decade will increase tenfold in the coming 10 years.

Currently, there is a broad-based consensus that Israeli high-tech needs the inclusion of a Haredi workforce in order to grow and flourish, and that Haredim need high-tech as an excellent means for participating in the country's economy and as an option for earning a respectable income. In addition, everyone understands that this mutual benefit is both possible and successful. As more appropriate means are found in order to increase this process, which is supported by the rabbis as well as the heads of high-tech and State and philanthropic bodies, all parties involved - the Haredi community, the high-tech industry and the Israeli economy - will profit from it.

THANKS

We would like to express our heartfelt thanks to KamaTech's supporters who thanks to them have made possible our activity and the publishing of this report:

The Anat and Amnon Sha'ashua Foundation, the United States Embassy in Israel, the Maimonides Fund, the Russell Berrie Foundation, The Jewish Federation of New York-UJA, the Schwartz Reisman Foundation, the Steinhardt Foundation, Cisco Systems, Google, Facebook, Western Digital, Bank Leumi, Bank HaPoalim, Menorah Securities, Ernst and Young Accounting, Meitar Law Firm, DLA Piper Law Firm, and a series of other supporters who wish to remain anonymous.

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ABOUT THE RESEARCH

The training options available to Haredim considering high-tech studies are varied and include degree-oriented studies, studies at The Institute for Training in Science and Technology (MAHAT - a governmental branch within the Labor section of the Ministry of Labor, Welfare and Social Services), courses in the framework of the IDF and vocational courses in various fields. Nonetheless, it seems like the largest segment of Haredim graduates of high-tech studies are graduates of MAHAT and, in addition, are mostly Haredi women, continuing their studies in the seminar framework. Recent years have shown a significant number of these students in the seminar framework going into high-tech studies and one can cautiously assume that this trend will continue in the coming years. In addition, alongside the formal studies in the field, recent years have seen the establishment of a number of training initiatives aimed at bridging the gaps between those studies offered in the seminars and the demands of the market. The majority of these programs include mentoring and assistance until placement in the field. However, despite the increased opening up of training and placement programs, the goal of which is to promote the integration of Haredim into quality employment positions, the number of those employed from the sector has still not realized the potential inherent within the Haredi population. Thus, the work of social initiatives such as "KamaTech", the Kemach Fund, Temech, "Yedidut Toronto", "Excellenteam" and other similar ventures prove to be a significant step in finding implementable solutions adapted to the Haredi sector and important for the promotion of Haredi integration within the Israeli high-tech industry.

The purpose of the research set before you is to present data and trends regarding Haredi education and employment in high-tech. The study contains two sections: the first part contains data regarding Haredi education and training in high-tech obtained from a number of sources, including the Central Bureau for Statistics, MAHAT, the Ministry of Labor and Welfare and Social Services, research centers, the IDF and others. The second section of the study presents data from the quantitative survey carried out amongst 1,277 male and female Haredim, both those seeking work and those at the time employed in high-tech.

This report is the result of a joint initiative by the Israeli Advanced Technology Industries (IATI) and KamaTech.

ISRAELI ADVANCED TECHNOLOGY INDUSTRIES (IATI)

IATI is the umbrella organization of the high-tech, life sciences and other advanced industries in Israel, with hundreds of members from every level of the ecosystem, including venture capital funds, R&D centers of MNC's, mature companies, start-ups, incubators, tech transfer offices & academia, universities, hospitals and more. The association is the most prominent and important representative of Israeli high-tech dealing with policy makers in government, municipalities and in academia. It functions in close cooperation with the senior professional and political ranks of the government ministries as well as with the Knesset and its relevant committees.

Israel Advanced Technology Industries

The association deals with technology education, commercialization of skilled human resources, promoting the social and geographic periphery and with the integration of a variety of population groups.

KAMA-TECH ORGANIZATION

KamaTech, established in 2012 with the purpose of promoting Haredi representation in the field of high-tech, has exhibited significant success in the field, even winning prizes and commendations for its work. The organization's management is comprised of both male and female Haredi entrepreneurs coming from the heart of the Haredi community who work closely with and under the guidance of respected rabbis and Haredi community leaders, as well as enjoying the support of Israeli leaders in high-tech.

This report was written by the Askaria Research Firm which specializes in studying the Haredi population in Israel. Working in the company are researchers both from within and outside the Haredi community, highly experienced in both qualitative and quantitative research as well as in data mining, information management and more. The firm assists its clients in decision-making and their implementations based on relevant up-to-date information in their particular field, as well as assisting with achieving the organization's or business' goals. The firm has extensive experience in conducting research in different fields including in the area of Haredi education and employment. Counted among the firm's clients are large concerns working in the field of high-tech, commercial businesses and government ministries.

We would like to thank the following people for their generous assistance in providing data and in assisting with carrying out the survey:

Roee Levanon, Director for High-tech Employment, and **Shira Berlinger-Poleg,** Senior Director for Haredi Employment, at the Populations Employment Directorate in the Ministry of Labor, Welfare and Social Services.

Yigal Gurvitz, Senior Vice-CEO at the Investments Authority Directorate and Employment Tracks and Special Tracks Director, and **Gil Aloni,** Director of Investment Tracks at the Ministry of the Economy.

Nitza Kasir, Vice-CEO, The Haredi Institute for Policy Research

Nimra Goren-Amitai, Counsel to the CEO Budget and Planning Committee; **Ronen Kotin,** Head of the Haredi Sector; and **Ori Ziv**, Budget Coordinator for Colleges at The Council for Higher Education.

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Gvira Millward and **Ruti Serota, "**Temech"

Yael Ravad, "The Haredi Women in the High-tech Community"

Kamatech

EXECUTIVE SUMMARY

Dear readers,

The Haredi High-tech Report 2020 presented here provides evidence of a rapid increase in all indexes related to Haredi high-tech.

The number of Haredim employed in high-tech stands today at 9,700 employees, compared with 6,400 in 2014 (an increase of 54%).

The "Spring Board to High-tech" Report by the Ministry of Finance, published in 2018 and which examined the number of those employed in high-tech between the ages of 35-45 with high salaries, found that the percentage of Haredim stood then at 0.7%. In this current report we found that the number of Haredim today employed in high-tech stands at 3%, an increase of over 400%.

The majority of Haredim currently employed in high-tech are under the age of 28 which points to a particularly rapid growth among the younger Haredi population.

Most of the Haredim in high-tech (71%) are Haredi women, with their numbers nearly equivalent to those of women from the general population also working in the field.

The number of Haredim enrolling in high-tech studies has also shown rapid growth. The number of Haredi academics in the field of high-tech (computer sciences, software engineering, electronics, etc.) increased from 1,050 per year to 1,417 per year and they comprise today 4.1% of all academics in the aforementioned fields nationwide. The number of Haredi practical engineers in high-tech fields (software engineering, electronic engineering and so forth) grew from 1,400 to 2,800 yearly, and they make up 47% of all practical engineers studying high-tech professions in the State of Israel.

The total number of Haredi practical engineers and academics together today numbers 3,700 a year, which is 10% of the total number of students in Israel studying in high-tech.

All of these figures indicate a rapid leap forward.

However, insofar as the salaries of those employed in high-tech, when examining all levels of education, the Haredi employees earn less than their non-Haredi counterparts.

The average monthly salary for Haredim is 10,830 NIS ($3,185) as opposed to 22,479 NIS ($6,611) for the general population.

Our challenge, therefore, is to create programs which will help ease the entry of Haredim into high-tech, helping them find good, high-salary jobs in good companies in the center of the high-tech world.

This is a challenge facing the government, large high-tech companies and non-profit organizations.

Only in this manner will it be possible to maintain the trend of rapid growth. If, however, Haredim remain at the edges of the high-tech world, employed in lower status positions and earning lower salaries, there is a good chance that this growth will either be slowed down or grind to a halt.

In the field of start-ups as well we are seeing a similar picture: according to figures from the Innovation Authority, a decade ago there were 0% Haredi startups (there might have been a very few, but with no significant numbers), but by 2020, 5-9% of the new start-ups created yearly in Israel and which applied for grants from the Innovation Authority were founded by Haredi entrepreneurs. This is an extremely rapid leap in numbers.

We also witness difficulties faced by Haredim in receiving investments and financing for their startups. According to data from the Innovations Authority, only 30% of these ventures, as compared to 42% for the general population, are successful in receiving funding from the Authority. In other words, here too the trend is similar; while more and more Haredim are establishing start-ups, in comparison to the general population they are still having greater difficulties in achieving success, measured in the ability to receive grants and financing.

We invite you to read the report and study it.

We would be pleased to receive feedback, as well as any ideas or suggestions for the promotion of this matter or for partnerships.

Wish best wishes,

Karin Mayer Rubinstein, CEO and President of IATI, the Israel Advanced Technology Industries

Moshe Friedman, Founding Partner and CEO, KamaTech

INTRODUCTION

Israel's high-tech industry has, in recent years, reached outstanding achievements that have placed Israel at the forefront of global technological innovation, as well as making up a significant segment of the growth in Israel's economy. Initial indications from the human resources survey carried out by the Central Bureau of Statistics show that the growth continued well into 2019. From 2012 to 2018 an increase of 23% was noted in the number of employees in the high-tech field and in 2018 this number had reached 321,000, or 9.2% of all employees in the work market.

The presence of the Haredi sector within the high-tech industry has not gone unnoticed, although the numbers are far from representing their percentage within the general population. The number of Haredi employees working in high-tech stands at 9,700, representing only 3% of all those employed in the field while making up 12% of the Israeli population. Among all Haredi employees in the field the rate of women is significantly higher, standing at 71%. In recent years there has been a notable growth in the number of Haredi employees in the field, and between 2014-2018 there was an increase of 52%(1).

This noted increase is the result in part of high-tech courses and studies offered in the Haredi seminars which have seen a steady growth in the number of female students enrolled from year to year, in the activities of non-governmental organizations such as KamaTech, the Kemach Fund, Temech and the like, in the variety of steps taken by the government to increase skilled human resources for the industry (as in the case of the program run by the Council for Higher Education and the Planning and Budgeting Committee to increase the number of students entering high-tech subjects in academia) and the variety of programs run by the Ministry of Labor, the Innovation Authority and additional organizations that will be described in more detail below.

The first part of the study is composed of three chapters. The first chapter will present a comprehensive database management survey of the various training possibilities in the field of high-tech for the Haredi sector. This survey will include data concerning the changes which have occurred in recent years, a mapping of the educational institutions in the high-tech field and information regarding the number of students enrolled in the different

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(1) Figures from the Bureau of Statistics

institutions of learning. The second chapter contains up-to-date figures on the changes over recent years in the rates of Haredi participation in high-tech employment, as well as comparing the average salary income of Haredim employed in high-tech with of the general population. Chapter 3 reviews Haredi entrepreneurship in high-tech. Although the field is relatively young it has shown significant growth in recent years.

The second section of the study will present findings from a comprehensive survey taken among Haredim, both those already working in the field of high-tech and those seeking employment, while examining the variables affecting them, such as seniority, gender, education, etc.

CHAPTER 1- TRAINING IN THE FIELD OF High-tech

This chapter will present the various frameworks for education and training in the field of high-tech available to the Haredi sector.

Studies in high-tech are concentrated within four training tracks:

1. Academic training in colleges and universities.
2. Governmental vocational training programs (diploma in practical engineering – Ministry of Education and MAHAT)
3. The IDF
4. Start-ups and training courses in the field

1. Academic Training (degree studies) – Colleges and Universities

The Council for Higher Education, through the Planning and Budgeting Committee, offers three different frameworks for attaining a university education in the field of high-tech:

1. Academic studies aimed at the general population.
2. Haredi frameworks within academic institutions (for example: the Strauss Campus next to Hadassah College, or the Lustig Institute adjacent to the Lev Academic Center, and others).
3. Studies in institutions which serve as platforms for various academic institutions (such as the B'nai Brak Haredi College Mivchar, located near the Lev Academic Center, the Technion, etc.)

In 2019 12,000 Haredi students were studying in institutions of higher education, including the Open University, making up 4% of the overall student population in these institutions. Of these, 8,400, or 69.8% of the total of Haredi student body, were women. The number of Haredi students increased overall by 3.3% from the previous year, an increase of 3.6% amongst the women and 2.6% amongst the men. The majority of Haredi students (84%) were studying for undergraduate degrees and 15% for graduate degrees.(2)

Between 2014-2019 there was a significant increase in the number of Haredi students studying high-tech subjects at universities and colleges: in 2014 the numbers stood at 1,050 students while by 2018 they had reached 1,417, reflecting an increase of 35% (Chart 1). In 2018 Haredi students in high-tech subjects made up 4.1% of the overall number of all students in high-tech studies, up from 3.8% in 2014, indicating a mild increase over the 4 years.

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(2) Figures from the Bureau of Statistics

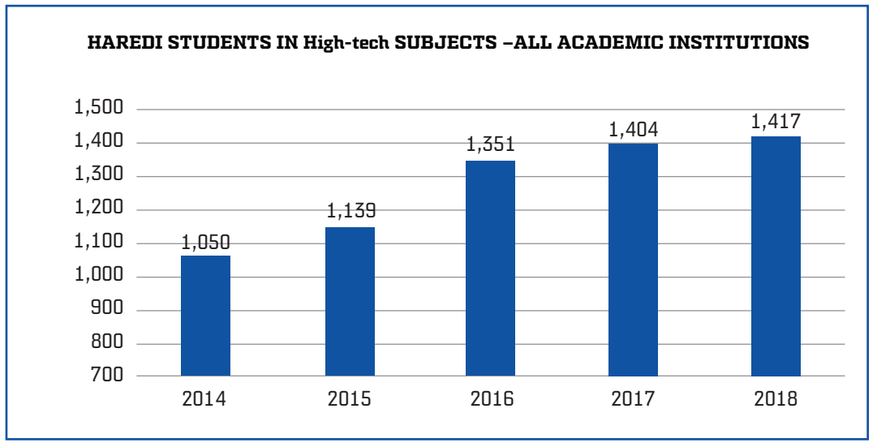

Chart 1: **Number of Haredi Students in High-tech Studies**

The vast majority of Haredi students studied in colleges and in 2017 their numbers stood at 1,114 students. A smaller proportion studied at the Open University or at other universities (Ariel University of the Shomron, Bar Ilan University and the Hebrew University of Jerusalem) Chart 2). In keeping with the relatively high number of Haredi students studying high-tech subjects in colleges, their numbers at these institutions during the 2017-18 academic year stood at 7.4% of the overall student population in the field, while at campus universities the numbers of Haredi students reached only 1% during that year and 3.9% at the Open University (Chart 3).(3) 50% of all students enrolled in high-tech studies are studying computer science, 23% computer engineering and the rest are studying various subjects within the field of high-tech.(4)

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(3) Processed figures of the Population Employment Department for the Bureau of Statistics, January 2020

(4) Mathematics, Math-Physics, Math – Computer Sciences, Statistics, Data Systems, Bio-Informatics, Managerial Data Systems, Electrical Engineering, Electronical Engineering, Electro-optics Engineering, Communications Systems Engineering, Data Systems Engineering

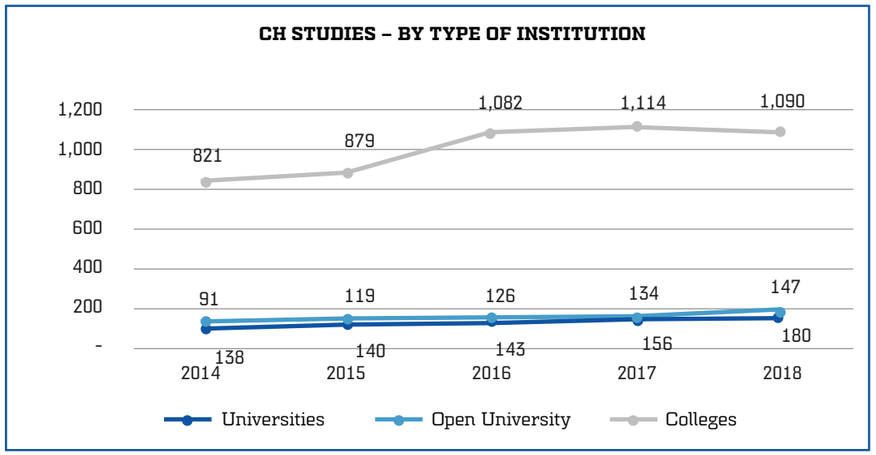

Chart 2: **Number of Haredi students in colleges and universities, 2014-2018**

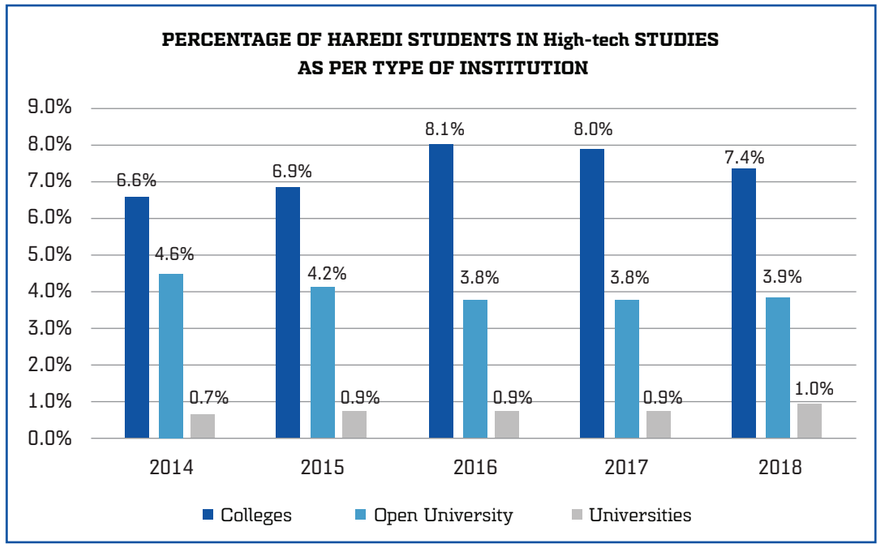

Chart 3: **Number of Haredi students in high-tech subjects from among total students in the subject**

In 2008, only 19 Haredi students were awarded degrees in high-tech subjects, while a decade later in 2018, this number had multiplied 11-fold and stood at 216 students, due to a significant increase that year (Chart 4).

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(5) Processed figures of the Population Employment Department for the Bureau of Statistics, January 2020

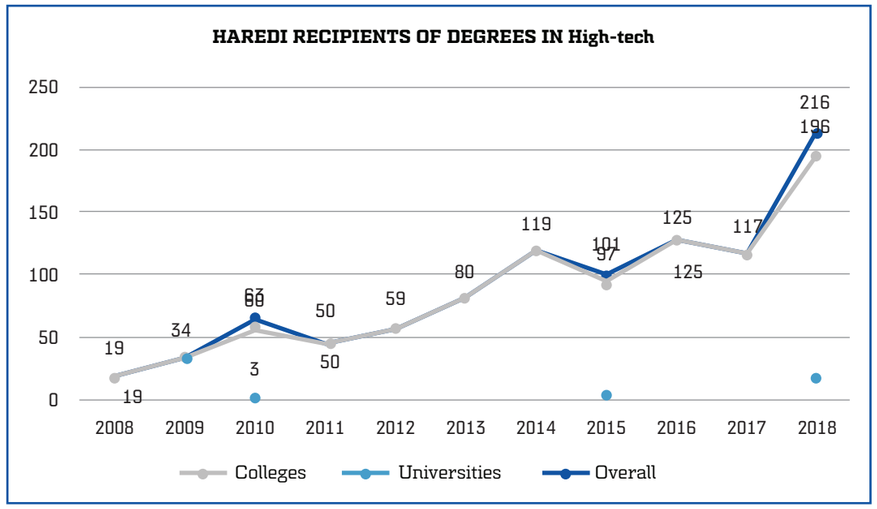

Chart 4: **The Number of Haredim awarded degrees by type of educational institution**

2. Government Vocational Training – Practical Engineering Studies

Two government ministries are involved in the field of practical engineering studies:

1. The Ministry of Labor, Welfare and Social Services
2. The Ministry of Education

The above ministries operate through a track for practical engineering studies at seminars and at yeshiva high schools for at-risk Haredi youth, as well as through the Government Institute for Training in Technology and Science (MAHAT – Department for Vocational Training). The number of Haredi students studying in a vocational training track (Practical Engineering diploma, MAHAT and the Ministry of Education) has steadily increased, and whereas in 2017 there were 2,083 Haredi students studying in this track, this number increased to 2,218 by 2019.

MAHAT -The Government Institute for Training in Technology and Science

Haredi training programs operating under the auspices of MAHAT take place on two fronts: 1) Technological training tracks in seminars; 2) vocational training tracks aimed at Haredim operating within other frameworks such as the Lomda Institute, the Haredi Center for Professional Training, and others. During the 2018-2019 academic year, the number of

Haredi students studying in MAHAT's professional training tracks stood at 2,054, representing 65% of the total number of students studying in this track.

The number of Haredi students studying in the framework of MAHAT is increasing; while in 2013-2014 the numbers stood at 1,420, by 2018-2019 they had reached 2,054. This increase stems primarily from an increase in the number of female Haredi students, the majority of whom are studying in seminars in MAHAT's technological training professional tracks. During 2013-2014 there were 1,394 female and 26 male students in the track, while in 2018-2019 there were 2,015 female and 39 male students, an increase which reflects an increase of 44% (Chart 5). The Haredi women studying in this track make up 98.1% of the total Haredi population studying in this track.(6)

Despite the fact that the number of Haredi men participating in technological training in the high-tech field is significantly lower than that of the women, an increase from 26 male students during the 2013-2014 school year to 39 in 2018-2019 was noted, and they represent 4% of students studying in this track.

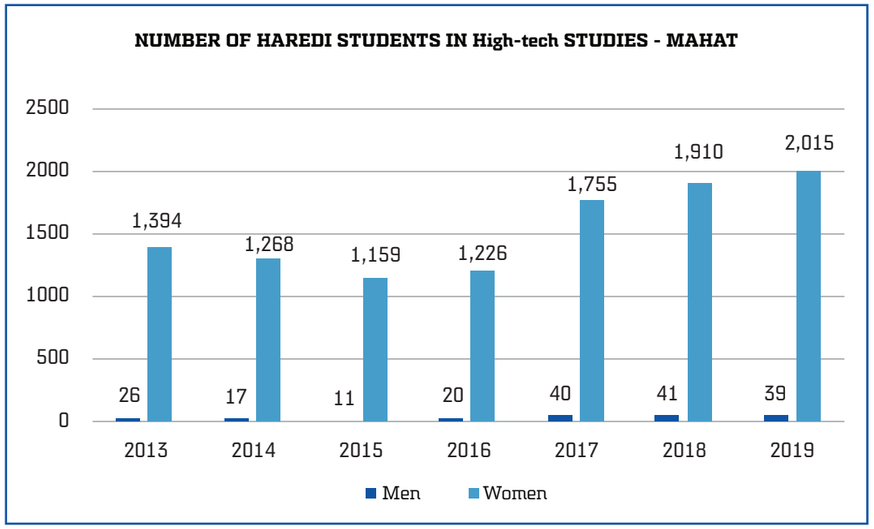

Chart 5: **Number of Haredi Students studying in MAHAT diploma programs in high-tech subjects**

(6) The Government Institute for Technological Training – MAHAT. Ministry of Labor, Welfare and Social Services

The number of graduates of MAHAT's high-tech program rose as well, increasing from 684 graduates in 2014 to 790 in 2018 (Chart 6), and the total number of those completing these studies between 2014-2018 was 3,222.(7)

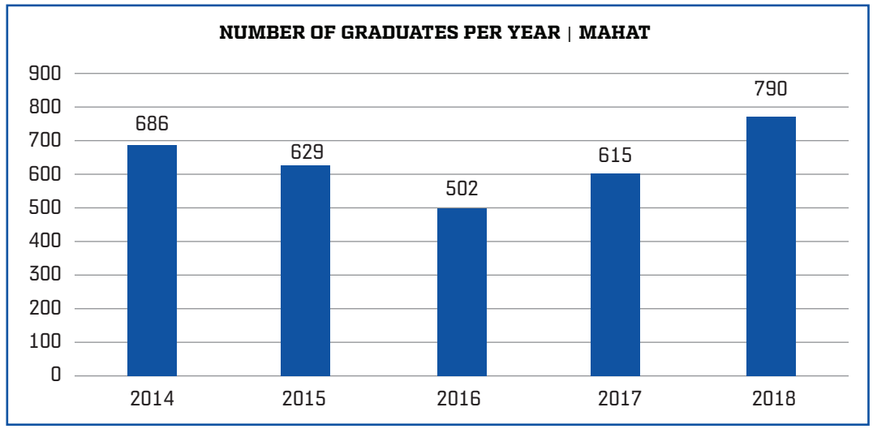

Chart 6: **Number of diploma graduates by year | MAHAT**

Ministry of Education

The Ministry of Education is involved in the field of practical engineering studies through technology-focused programs. Studies in these tracks begin in high school (10th-12th grades) and are the basis for continuing training in the field of high-tech during post-secondary education (grades 13 and 14). Studies in the technological track provide a base of theoretical and practical knowledge which is at the vanguard of elite technology and can serve as an excellent entry point for students wishing to enter the high-tech industry in the fields of electronics, computers and biotechnology as engineers, practical engineers or technicians.

In recent years there has been a rise of 165% in the number of female Haredi students enrolled in technological training offered by the Ministry of Education, growing from 105 students in 2018 (Chart 7) to 273 In 2020. In 2020 this study framework exists in 12 Haredi seminars as compared to only two seminars as recently as 2017.(8)

(7) Educational institutions: Or Chayim, Beis Yakov Teachers' College, Mekor HaMaayanot College, Ashdod Seminar, Beit Bina Seminar, Darchei Rachel Seminar, Ramot Seminar, Haredi Center Ashdod and B'nai Brak branches, Gur Seminar Jerusalem, Ohel Avraham Seminar Rishon LeZion, Beis Yakov Seminar in Israel Jerusalem, Beis Yakov Seminar Haifa, Zichron Zvi Seminar, Ofakim Seminar, Afikei Da'at Seminar, Beis Yakov Petach Tikva Seminar, Beit Tamar Seminar, Halichot Beis YAkov Seminar, Halichot K. Sefer Seminar, Beis Yakov Teachers' Seminar, Maalot Seminar, Alei Be'er Seminar, Shvilei Beis Yakov Seminar, Shaarei Daat Seminar, Scherensky Seminar

(8) Source: Ministry of Education, Technological Training Department

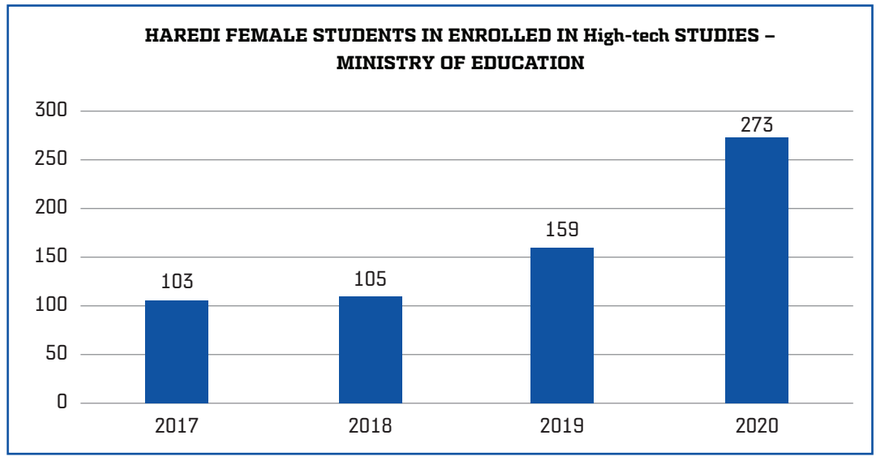

Chart 7: **Number of female students studying for practical engineering diploma through the Ministry of Education**

Vocational Training Colleges

Additional avenues for attaining needs skills in high-tech are courses offered at the various colleges and training centers, with some of those participating in these programs doing so as further training after achieving a diploma in practical engineering from MAHAT or the Ministry of Education. The colleges offer separate study programs for women and men as well as participation in mixed-class training sessions.

Below are some of the outstanding institutions in the field:

- INT College (formerly Nes College): Offers a range of diploma programs in a variety of fields: SAP, cyber training, project management and systems analysis and software testing. In 2019 122 male and female Haredi students participated in these training sessions (programming - 50 students, software testing and network management - 72 students).(9)
- RavTech: A training and employment framework (software development and testing for married Haredi men with families). Each class contains 20-25 students, with a total of 144 participants having completed the program. Of these graduates, around 70% are employed by RavTech while the rest are employed by leading high-tech companies.(10)
- John Bryce College: Offers a range of tracks for high-tech studies, including DevOps, software testing, data and databases, software development, infrastructure and communications, cloud computing, information systems, technology management, product management, cyber and information security, design and digital. In

2018-2019 70 Haredi men and women took part in various courses, the majority in the Jerusalem branch and the rest in Haifa and Tel Aviv.(11)

The Cost of Training for Haredi Student - Academic and Vocational Training

Various bodies throughout the country invest a great deal in encouraging new population groups to move into the world of employment, in general, and specifically into the world of high-tech. The costs for training each student are high and are higher still for the Haredi student due to the dedicated preparatory programs established to help bridge the gaps in the command of mathematics and English exhibited by the majority of Haredi students, as well as scholarships and grants which assist with living expenses. As such, it is relevant to examine the costs involved in training Haredi students for academic diplomas in high-tech in comparison with other training schemes such as MAHAT or vocational colleges. There are a number of variables affecting the cost of student training, including the type of institution (university or college), type of degree (computer sciences or electronic engineering), distance from the main campus, programs aimed at Haredim, and more. As an example, the cost of training a student at Hadassah College for a degree in computer sciences comes to 130,000 NIS ($38,200), not even including the student's tuition fees. Comparatively, the cost of training a female Haredi student through the MAHAT track comes to 30,000 NIS ($8,800), with a male Haredi student paying an extra tuition fee of 16,000 NIS ($8,800), for a total of 46,000 NIS ($13,500).

3. THE IDF

The recruitment track offered to young Haredim is today called Magen and was formerly known as Shachar (short for Service for Haredim). The majority of those who enlist via this track serve in the Intelligence Unit (37%) and in the Air Force (24%), with others serving throughout the remaining units. This track was initiated in 2007 and its purpose is clearly defined as a track which provides the soldiers serving therein with vocational technological training such as programming, software examiners and network managers.

Unlike combat units, this track is aimed at married yeshiva students aged 22-27. Those serving receive a higher salary, known as a family payment, as compared to young men doing their regular army service. The monthly salary comes to several thousand NIS, sometimes more than the minimum wage. In 2007 there were only 40 soldiers in this track, but by 2015 the numbers had risen to 1,000. Notwithstanding, due to

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(9) Source: INT College

(10) Source: RavTech

(11) Source: John Bryce College

organizational changes in the IDF and changes to the induction law, the number of solders inducted in 2019 dropped to 200, with only 50% of them completing the army training course. 70-80 soldiers are completing their training as programmers and 30 more are in the software examination and network management track. It was recently noticed that the figures for Haredim going into the IDF were incorrect and there are those who claim they were falsified in order to present an incorrect image which would show that those joining the army from within the Haredi community were reaching the numbers set out by the government. If this is the case, these figures need to be taken with a grain of salt.

4. TRAINING IN ORGANIZATIONS AND START-UPS

There are numerous programs run by governmental and non-profit organizations which offer training channels and entry paths for the thus-far underrepresented Haredi society into the high-tech industry. On the part of the government, the Innovation Authority and the Labor Section of the Ministry of Labor and Welfare run programs in cooperation with businesses and other organizations. There are also independent programs run by organizations and associations such as "KamaTech", Velocity Up-Scale-SNC, Bizmax, Yedidut Toronto and others.

Non-governmental initiatives

One of the more interesting phenomena in high-tech's human resource challenge (which has garnered significant public attention) is the apparent paradox of a notable lack of trained manpower as well as reports about the difficulties of breaking into an entry position in high-tech. Hiring employees with no experience requires that the company dedicate significant resources for training workers in order to gain the most from them in the long-run. Clearly, the larger companies have the advantage in this, as opposed to the smaller companies who have a difficult time freeing up resources and managerial attention for training. To this end, a number of programs were developed to handle the abovementioned challenges (strengthening training and integration in employment). Among these programs are:

KamaTech

KamaTech was founded by a group of Haredi entrepreneurs with the support of some of the main Israeli leaders in high-tech in order to promote Haredi high-tech. The start-up includes a coalition of over 80 of the largest high-tech companies in Israel, working together to integrate women and men from the Haredi community into the best of positions in the leading high-tech companies. Among "KamaTech"'s activities are the programs below:

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(12) "The Haredi Employment Army" | The Israeli Institute for Democracy, 12/2017

(13) Source: The figures were provided by a source in the IDF

- Placement program: Aimed at assisting Haredi men and women with technological education to integrate into significant positions in leading companies in the field at high salaries. Up until now, within the framework of the program, over 1,000 Haredi men and women have been placed in international high-tech companies such Google, Microsoft, Facebook, Apple, Amazon, Mobileye and others.

- Ultra-code program: This program has been running since 2018 in cooperation with international high-tech companies, and includes training through courses from the best universities in the world, boot-camps at leading high-tech companies and guidance for placement in top high-tech companies. The program operates already at the level of the Haredi seminars, with the guidance of the most influential rabbis. During the 2018 pilot year, in cooperation with the program's founding partner, the Western Digital Company, 24 female students graduated the program, 23 of whom were placed in international companies at high salaries. In the second year, 2019, 400 female students entered the program, of whom 120 graduated with honors and 100 of them were placed in the leading high-tech companies in Israel. In the current year, 2020, 700 female students entered the training program at grade 14 and a further 700 at grade 13. Already at this point in the year initial placement efforts are underway, with 25 students already placed at high salaries.

- Skill-Up – a training program for those with experience: The program functions in cooperation with Cybertech, Checkpoint, Cisco and Google and is aimed at Haredi men and women with prior experience in the field. Within the framework of the program training is provided in those areas in demand in the market, including cyber, data science and mobile development, with close guidance for placement in the field. In 2020 over 60 participants took part in the field.

- Producing of high-tech events for the Haredi public: Since its founding, KamaTech has every year, held dozens of events on high-tech subjects for the Haredi public, lectures by leading people in high-tech, hackathons, start-up contests, professional workshops and more.

She Codes

This is a social start-up founded by Ruth Polchack together with the Ministry of Welfare in order to increase the number of female program developers. In the program female Haredi students receive reinforcement training as early as during their seminar studies. During the 2018-2019 year four study classes were run and over 200 women on average took part in each.(14)

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(14) Source: She Codes

Temech

The organizations deals with the development and promotion of employment opportunities for Haredi women who have a background in technology and high-tech fields, as well as assisting with their integration into the workforce by providing targeted vocational training, mentoring and placement assistance. 1,000 women are members of the "Tech App" forum for programmers, and there are 100 women participating in the "Tech App" project which provides training and practical experience.(15)

SNC

- **Adva Program:** The program includes math and computer science studies at university level and takes place within the framework of seminary studies ("HaYashan" and "HaChadash" seminaries in Jerusalem and "Wolf" Seminary in B'nai Brak). 93 seminar students participated in the program's first year, 2017-2018.

- **Excellenteam**: This is an elite program for training excelling developers from among those graduating with degrees in computer science and program engineering, but who graduated without attaining the practical or vocational knowledge needed. The purpose is to assist in solving the problem of lack of quality human manpower, a problem which characterizes the core positions in the high-tech industry. Within the framework of the program participants receive a generous living stipend, assistance with placement and mentoring throughout the training and for up to a year following their entry into the labor market. The program functions in cooperation with the Kemach Fund, the Kivun Center and leading companies from the Israeli high-tech industry.

Tzomet Consulting and Studies

This is an initiative, operating in cooperation with expert organizations in the industry, offering vocational training (cyber and other) and is aimed at female graduates with diplomas in practical engineering from MAHAT or the Ministry of Education, as well as graduates with post-secondary education in other fields. 30% of the participants have had training in high-tech fields, another 40% have vocational training or a degree in other fields, and those remaining have not been trained. 50 students participated in the program in 2019.(16)

The Haredi High-tech Forum

This is a non-profit organization whose goal is to encourage entrepreneurship and the creation of connections between entrepreneurs and the high-tech industry. The forum deals with providing on-going support for entrepreneurs (acceleration programs), training for entrepreneurs, produces promotional events for the field, and more.

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(15) Source: Temech
(16) Source: Tzomet Consulting and Studies

Government Programs

- The Ministry for the Development of the Negev and the Galil: This is a comprehensive program for employment training and guidance (boot-camps) for female seminar students with a background in technology. The programs are available through the local authorities in Beitar Ilit (90 participants) and Modiin Ilit (60 participants). The program claims a placement rate of 50% of its participants.

- Yedidut Toronto: This is the most recently established program (2019). It's a joint project of the Yedidut Toronto Fund and the department in charge of employment in the Ministry of Labor and Welfare. The program offers scholarships, guidance and direction for academic studies in high-tech subjects for a select group of Haredi men and women through to their integration into quality positions in leading high-tech companies. In 2020 an additional class, meant to be the last one, opened with 70 students participating, 70% of whom are men and 30% women.

- Aluma – Achievements in high-tech: The current program accompanies 50-60 Haredi students, with 100 Haredi students (all men) already having gone through the program. Activity within the Haredi community began at the same time as that in the general public during the 2016-2017 academic school year. Participants from the Haredi community form 8% of the overall program participants. The majority of students are IDF veterans while a minority is part of the Haredi "mainstream." The program is on a growth path both in terms of the number of students involved and in terms of the number of institutions with whom it works.(17)

- Basic subjects and preparatory programs (Mechinot) – One of the main obstacles faced by a Haredi candidate interested in beginning work in the world of high-tech is a lack of knowledge of the core subjects – English, mathematics and technological literacy. Catching up on these subjects is possible both through short, focused courses run by the guidance and other centers, both through extended technology preparatory programs at the Wing for Vocational Training and through pre-academic preparatory programs at the Ministry of Education and the Planning and Budgeting Committee of the Council for Higher Education.

Technological preparatory courses – Department for Vocational Training	Basic courses through the Guidance Center	
106	937	**2014**
185	2,136	**2015**
210	2,507	**2016**

Table 1: **Number of students at guidance centers and technology preparatory programs**

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(17) Source: Aluma

- Financed courses: The Department for Vocational Training at the Ministry of Labor and Welfare is working to develop wholly subsidized courses for employment seekers, and particularly for the Haredi population. The courses are given in computer-related fields, based on a broad range of study curriculums validated by the Department's pedagogical section. Within this framework a range of courses are offered in programming, data security and cyber security, computer maintenance, network management and more. Please note that some of those studying are soldiers who are part of the Shachar track, who upon completion of their studies are intended to integrate into the various branches of the army.

- Coupon-based financing for studies: In addition to the subsidized courses described above, the Ministry allows partial funding of tuition fees in a range of courses at colleges, including in the field of computer science. This financing is available for any student interested in integrating into the program even if a targeted group has not been established, with subsidies of up to 85% of the tuition as well as an on-going grant following employment placement (see the list of courses in appendix B).

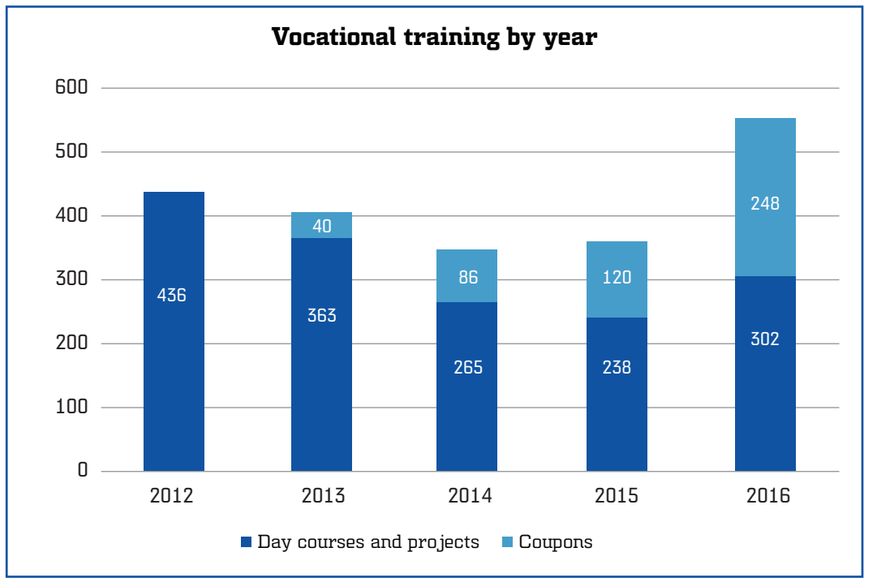

Chart 8: **Number of participants in the course, external courses through coupons and in day courses**

CHAPTER 2 – EMPLOYMENT

The Israeli high-tech industry is growing year after year, as are the numbers of those employed. Nonetheless, within the Haredi sector there is still plenty of room for improvement, whether regarding the numbers of employed, average salaries or involvement in private entrepreneurship and the start-up industry.

As we noted, the representative employment of Haredim in the high-tech sector remains low, and despite the increase which has occurred in recent years it remains at only 3% while Haredim in fact make up 12% of Israel's population. The Haredi population is exhibiting an accelerated growth trend and, as the years progress, will make up a larger proportion of the Israeli population. According to forecasts by the Bureau of Statistics, by the year 2025 Haredim will form 14% of the population and in 2035 nearly every fifth person in the country will be Haredi. At the same time, the figures for non-Haredi Jews in the population are expected to drop significantly. Therefore, without a significant increase of Haredi employment in high-tech, the lack of manpower in the field will continue to grow.

In recent years more and more Haredi women are joining the labor force and, as a result, the rate of employment among Haredi women has risen rapidly, standing at 76% in 2018 which is slightly higher than that of their non-Haredi counterparts which is 74.2%. On the other hand, the rate of employment among Haredi men stands at 51.7%, as opposed to 86.9% in the general population (Chart 9).

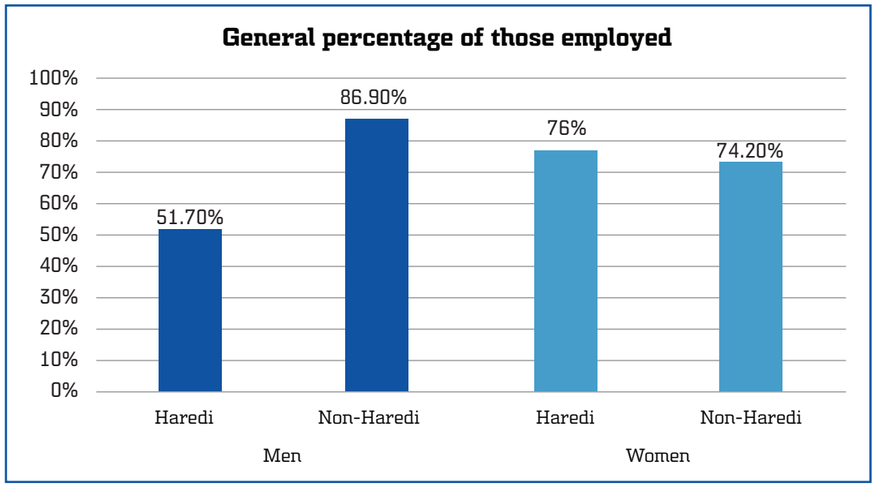

Chart 9: **Percentage of employees in the market according to sector and gender**

These differences are notable in the field of high-tech as well, where Haredi women make up a significantly larger portion of the workforce than do the men, as indicated by figures from 2018 which show that the number of women employed in the field stood at 6,900 as compared to only 2,800 men (71% and 29% respectively). This figure reflects an increase of 90% from the rate of women employed in the field in 2014, when there were 3,700 women employed in high-tech, while the number of men employed in the field remained the same. It ought to be noted that the percentage of Haredi women working in high-tech out of the total number of employed Haredi women is only 5%, which is only slightly lower than the rate - 6.5% - of non-Haredi women in the field. The rate of Haredi men employed in the field out of the total of employed Haredi men is 3.6%, as compared to non-Haredi men, who make up 10.4% of all those employed. (Chart 10).(18)

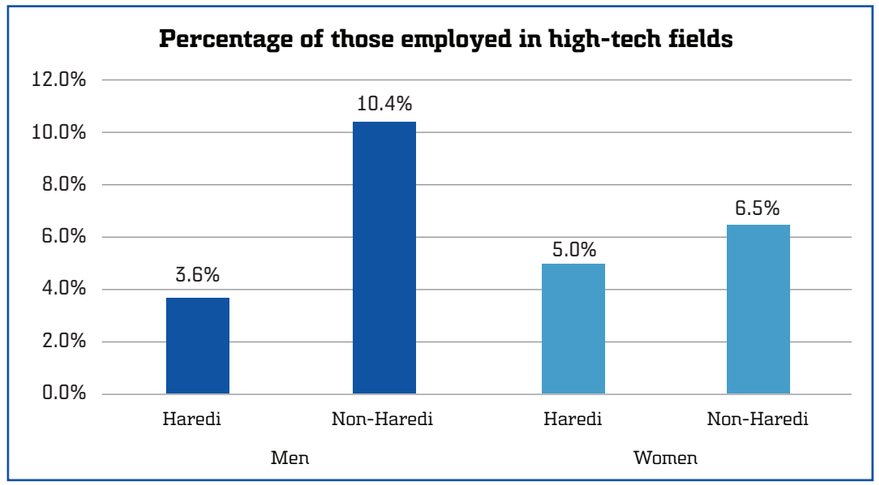

Chart 10: **Percentage of those employed in high-tech our of the total number employed, according to sector and gender**

Salary

According to figures from the Israeli Tax Authority,(19) the average salary earned by Haredi employees in high-tech is 10,830 NIS ($3,185), as compared to 22,479 NIS ($6,611) for non-Haredi employees. The average salary for Haredi employees without degrees who are employed in high-tech is 9,786 NIS ($2,878), 16,692 NIS ($4,909) for those who hold degrees in high-tech subjects from a vocational college, and 25,698 NIS ($7,558) for those who hold university degrees. The following chart

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(18) Source: Figures from the Bureau of Statistics

compares the salaries of Haredim and non-Haredim according to level of education (Chart 11) and as can be noted, at all levels of education Haredim consistently earn less than non-Haredim.

These differences can be explained as the result of a number of factors, among them: the shorter work day of Haredi women (who form the majority of the workforce in the field), the preference of Haredi women for working in a Haredi environment, which limits their employment options, and, in addition, the fact that career development is not necessarily their primary goal, as they prefer to care to the needs of their families.

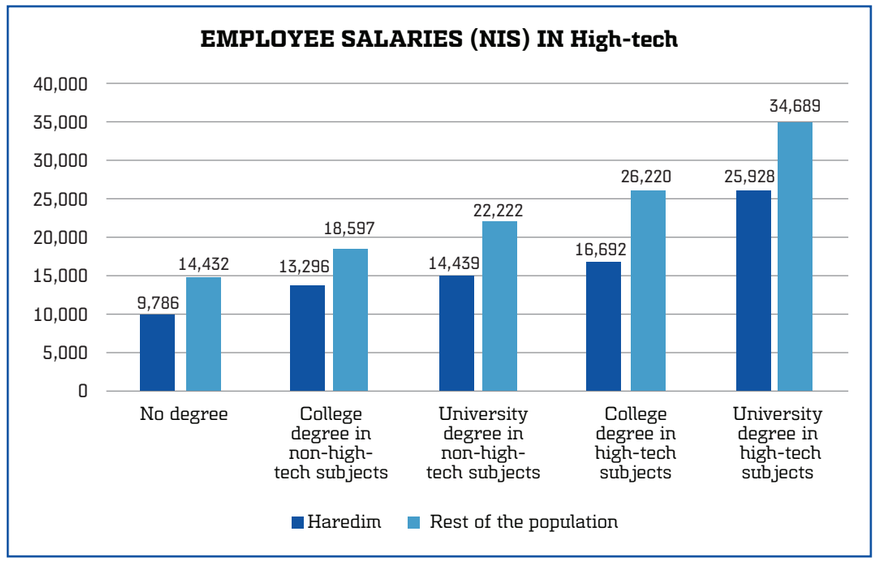

Chart 11: **Employee salaries in high-tech by Level of Education**

The gap in salary levels decreases over the years following attainment of a degree; according to research comparing the salary conditions of Haredi and non-Haredi women employed in branches of high-tech it emerges that there is, on the average, a gap of 1,968 NIS ($579) between non-Haredi and Haredi women immediately following completion of degree, a gap that drops to 1,628 NIS ($479) one year later and by four years after completing the degrees this difference shrinks to an average of 610 NIS ($179) (Chart 12). One could estimate that given the fact that the Haredi employees become more experienced, the value of their work increases in the eyes of employers and as a result the wage gap between them and their non-Haredi fellow workers drops. Nonetheless, it is interesting to note that among non-Haredi women the trend is non-linear and two

years after completing their degrees a stabilization, and even a reduction, occurs in their salaries, while the salaries of the Haredi women continue to increase.

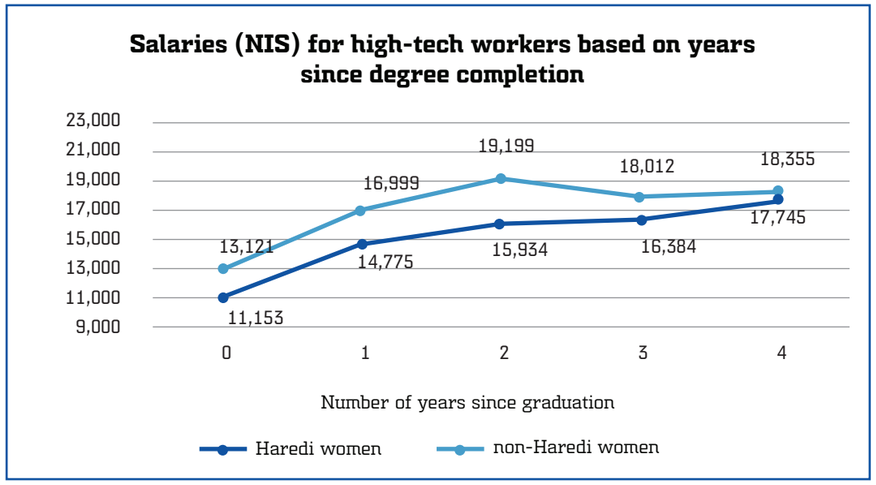

Chart 12: **Differences in salaries between Haredi and non-Haredi women based on the number of years since completion of the degree**

In a survey carried out by the Haredi Institute for Policy Research concerning the salaries of female Haredi seminar graduates, findings indicated that while in other fields of employment the majority of those employed earned less than 6,000 NIS ($1,764) (97% worked at secretarial work, 82% in the field of education and half of those employed worked in accounting and tax consulting), in the high-tech industry only 10% earned under this amount: the monthly salary for 21% was between 6,000 and 8,000 NIS ($1,764-$2,353), between 8,000 and 10,000 NIS ($2,353-$2,941) for another 25%, and 44% earned more than 10,000 NIS ($2,941) - for comparison's sake, for those working in accounting only 20% reached a similar salary level. (Chart 13).(21)

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(19) The figures refer to those born in 1970-1995 and are correct as of 2017

(20) Report on human resources in the high-tech industry 2019

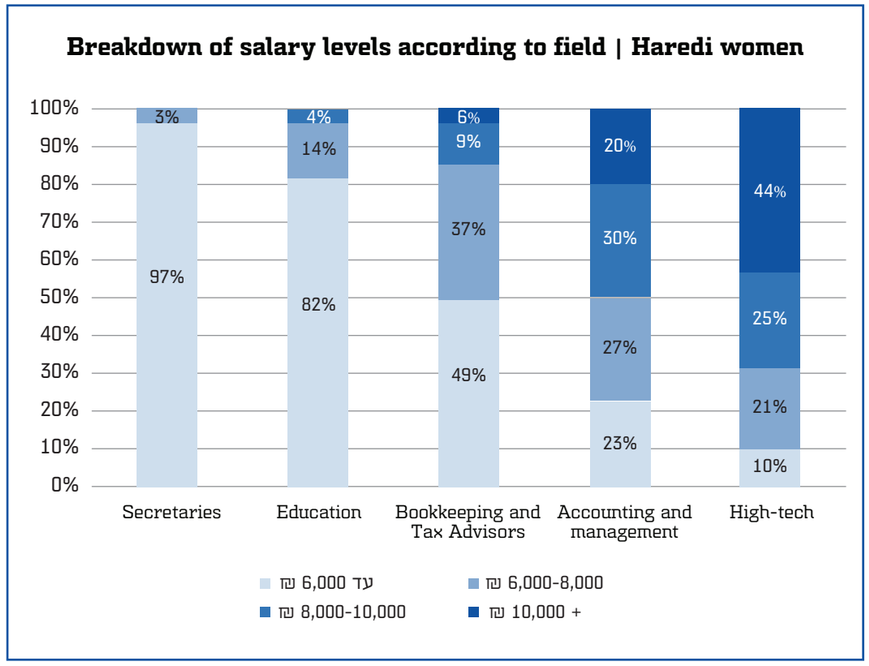

Chart 13: **Breakdown of salary levels according to field of employment**

Findings from the survey further indicate that notwithstanding the relatively high salaries in comparison with other fields, there is still a significant gap between the salaries of Haredi women employed in the profession and those of their non-Haredi counterparts. In the 25-35 age group Haredi women employed in high-tech earn on the average of 9,335 NIS ($2,746), their counterparts in the religious sector earn 10,642 NIS ($3,130) and those from the general population earn 12,356 NIS ($3,634). Only the salaries of Arab women working in the field are lower than those of Haredi women, averaging at 7,741 NIS ($2,277) per month.

Employer Incentives

Director General's Circular 4.17 (Employment Track): The Authority for Investment and Development of Industry and Economy at the Ministry of the Economy and Industry developed tracks to assist in the absorption of new employees into Israeli businesses by subsidizing part of the cost of the employee's wages. Within the framework of this allocation, employers receive subsidies for the employee's wages for a period of 30 months. Those branches which receive the support are, for the most part, in industry, services and high-tech. Overall, since 2005 1,228 businesses

received assistance in filling 26,621 new positions and the maintaining of 80,855 existing jobs through the framework of the employment track. The total amount of grants approved stands at 1.8 billion NIS ($529,411,765) which translates into salary payments of 10.4 billion NIS ($3,058,823,529).

Research into effectiveness carried out by the Geocartographic Institute for the Investments Authority found that:

- Two years following the completion of the program 50% of those who had participated in it showed a raise in salary, as compared to only 31% in the control group.
- Two years following the completion of the program those who participated showed an increase in employment at a rate of 35% as compared to 24% in the control group.
- Among employers who participated in the program there was an increase in the number of employees coming from within the targeted populations: an increase of 100% from the minority population as compared to 30% for the control group and, specifically, an increase of 230% from the Haredi population as compared to 46% in the control group)

Below are the figures regarding the start-up's years of activity 2009-2019: 113 requests made by employers for assistance in employing new Haredi employees were authorized and as a result 1,867 positions were added to the economy.(22) As part of the program's requirements, the employers were obliged to keep any existing positions, and as a result of this an additional 8,561 positions were not lost in the economy. The total grants stood at 112,390,856 NIS ($33,056,134) and the total salaries paid stood at 510,477,239 NIS ($150,140,365).(23)

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(21) Nitza Kasir Kleiner, Survey of Seminar Graduats – Employment in the field of high-tech, 2019.

(22) Calculation of the scope of a position is based on full-time employment.

(23) Total salary costs for new employees who joined as a result of the program.

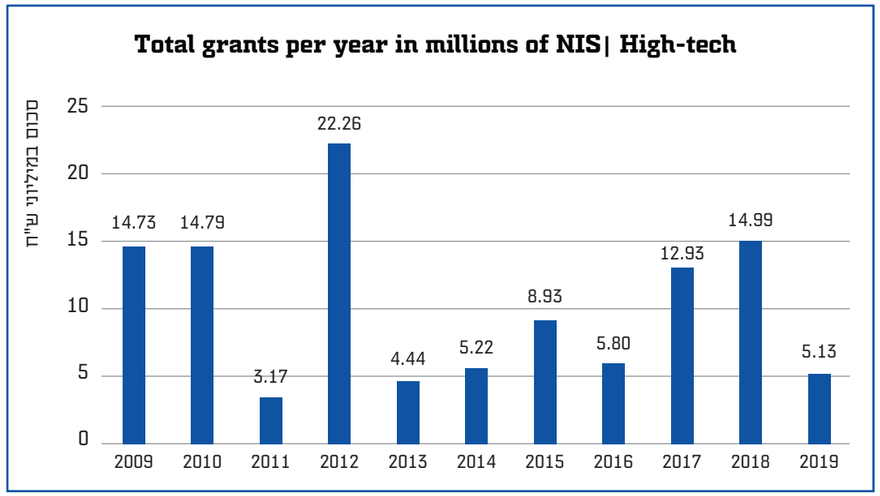


Chart 14: **Program 4.17 | Total grants for employers in high-tech, by year**

CHAPTER 3 – ENTREPRENEURSHIP

The branch of Haredi start-ups in high-tech is showing significant growth in recent years. If at the beginning of the decade, and even more so during the previous decade, there were almost no start-up companies being established by Haredi entrepreneurs, recent years have shown that it is definitely possible to speak of a trend of growth in the field. In December 2013 KamaTech held the first start-up contest of its type for entrepreneurs in the Haredi community together with Dr. Yossi Vardi, Zika Av-Tzuk from Cisco, Yoram Yaacovi, then CEO of Microsoft, the investors Chemi Peres, Yuval Shachar and Yizhar Shai, former head scientist Avi Hasson, Amit Lang, at that time CEO of the Ministry of the Economy, a number of other partners from the field of high-tech and experts in capital risk, with the winning start-ups receiving grants. As a result of this step KamaTech's start-up accelerator program for Haredi high-tech entrepreneurs was founded, led by Mobileye's founder Prof. Amnon Shaashua, and the program took off in 2014. Today KamaTech's start-up accelerator program is entering its sixth year of activity. At the same time, the head scientist advertised a special project for encouraging entrepreneurs from unrepresented populations, amongst them the Haredi and Arab sectors. The program was called the "Beginning Companies" and offered government grants for start-ups led by Haredi or Arab entrepreneurs at a rate of 75% of the presented budget for up to 2.5 million NIS ($735,300) in the first year, and 70% of the budget up to 5 million NIS ($1,470,600) in the second year.

In the following years several other programs were established. At the end of 2014 the "Entrepreneur at Heart" program was set up by the Lev Academic College and was active for two cycles. In 2015 the start-up incubator of the Haredi High-tech Forum was founded and lasted for one cycle. In 2018 the Temech Fund BizLabs program took off and is currently in its third cycle. In 2019 the Center for Technological Accelerators through the Small and Medium Business Authority began working with a number of population groups in a number of locations across the country, with three being set up in Jerusalem, B'nai Brak and Beit Shemesh and aimed at entrepreneurs in the Haredi sector. According to the Innovation Authority, since the inception of the "Beginning Companies" program, 100 start-ups by Haredi entrepreneurs have approached them for grants, with 33 being approved. Although this rate is slightly below that of the general population where the percentage of grants approved was 44%, it remains an impressive rate for an ecosystem at the beginning of its journey. According to the Innovation Authority, the rate of Haredi entrepreneurs applying for grants out of the population at large is 5-9%. This too is notable when considering it applies to an ecosystem just starting out, but the intent is to reach 12%, a proportion equal to that of the Haredi sector within the population.

According to various estimates in the field, since 2015 200 Haredi start-ups have been established in Israel, a figure which is supported by figures coming out of the Innovation Authority that documents 100 Haredi companies who applied for grants, when normally, for a variety of reasons, half of all start-ups never even apply for the grants (setting up of a foreign company, etc.).

In conclusion, we are seeing in recent years an impressive growth in the number of Haredi start-ups being established, thanks to a number of private programs established in the field, as well as to the program run by the Small and Medium Business Authority at the Ministry of the Economy and the special track at the Innovation Authority. At the same time, there is still a need to aspire to growth which will lead to the proportion of Haredi entrepreneurs equaling their percentage in the population, in other words 12%, as well as aiming to have the rate of Haredi start-ups receiving grants from the Innovation Authority match that of the rest of the population, in other words, 42% of all applications. ■

SURVEY FIGURES FOR HAREDI EMPLOYMENT IN HI-TECH

ISRAEL ADVANCED TECHNOLOGY INDUSTRIES IATI AND 'KAMA TECH'

JULY 2020

CONTENTS

ABOUT THE INSTITUTE

אסקריא

'Askaria' is a research institute specializing in the Haredi society. The Institute offers research based on close acquaintance with the Haredi community, allowing an accurate segmentation of the sector in a manner tailored to the aims of each specific study.

The institute employs researchers from the Haredi community who have in-depth knowledge of the sector and who have research experience in a myriad of research topics. The Institute has access to a number of databases of survey subjects and panels which permit research to be carried out within various groups of the population which, in turn, makes possible 'a sense of what's happening on the ground' in order to get an up-to-date picture of the situation as well as forecasting future trends.

The Director of Resarch, Dr. Gadi On, has a background of many years in qualitative and quantitative research, as a supervisor of research studies on the Haredi society, and, in addition, is a lecturer on research methods and statistic at the Open University as well as at other academic institutions. The Institute's staff includes Haredi researchers who have completed graduate degrees, are experienced in qualitative and quantitative research in a range of backgrounds: psychology, sociology, business administration, marketing, organizational counseling and more.

Our vision is to offer the client business and organizational insights and to help facilitate in making the right decisions at the right time, based on academic-level research.

Institute website: Askaria.co.il

INTRODUCTION

The report findings are based on a sampling of 1,277 Haredi respondents working in Israeli hi-tech.
A dual-stage image emerges from these findings;
The first deals with a description of the sampling in general and presents figures about Haredim in the hi-tech world from the point of view of a number of factors such as education, employment and different areas related to employment.
The second deals specifically with the place of Kama Tech's as a significant factor in analyzing Haredi employment as well as theirintegration into Israeli hi-tech.

EXECUTIVE SUMMARY

- The majority of hi-tech workers are married women.
- The majority are between 19-23 years old.
- Most are part of the Litvak stream (a non-Hasidic sub-group of the Haredi population) and live in the center of the country.
- The majority of the respondents completed studies in the field of hi-tech and about half are graduates of MAHAT.
- 75% of the respondents found work in hi-tech and about half of them searched for work for between 4-6 months.
- Over half of the respondents did not participate in any training programs.
- The majority of the respondents work full time, about half in a secular environment which has been adapted to the Haredi society, the majority as company employees and in organizations which are not hi-tech companies.
- The most prevalent monthly salary range is between 16,000-23,000 NIS ($4,706-8,149).

BACKGROUND AND METHOD

BACKGROUND AND METHOD

SURVEY AIMS:

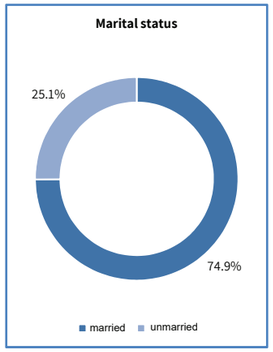
- A survey of Haredi employment in hi-tech fields
- An examination of the side-effects resulting from Kama Tech's encouragement of employing Haredim in Israeli hi-tech.

METHOD OF DATA COLLECTION:

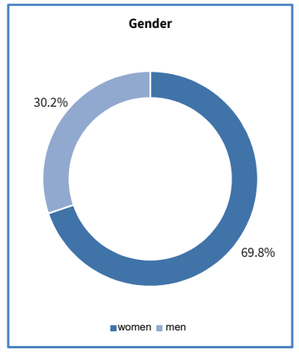
- An online voluntary response survey.
- Responses by 1,277 respondents who are working or are looking for work in hi-tech.
- The survey was distributed between April 6-May 19, 2020

SAMPLING CHARACTERISTICS

EMPLOYEES AND THOSE SEEKING WORK IN HI-TECH

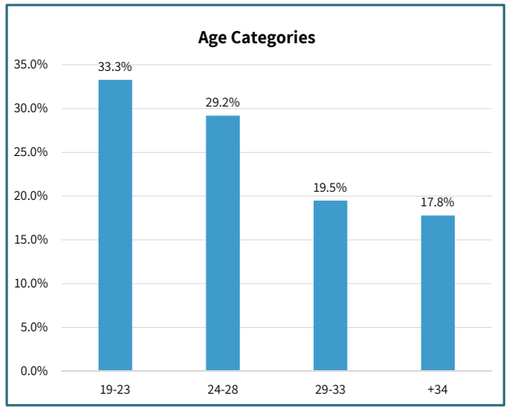


The illustrations examining characteristics of Haredi employees in hi-tech indicated that the majority of employees are women and the majority (men and women) are married.
The reasons for the prevalence of women in the workforce are rooted in two factors: the first is that the rate of women working in the Haredi world is higher than that of men, and the second is because a significant number of the Haredim entering into the hi-tech world are those who received training while in seminars.



SAMPLING CHARACTERISTICS

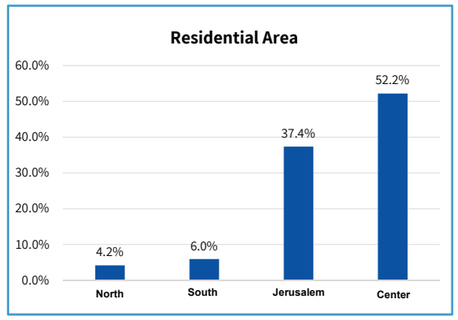
EMPLOYEES AND THOSE SEEKING WORK IN HI-TECH

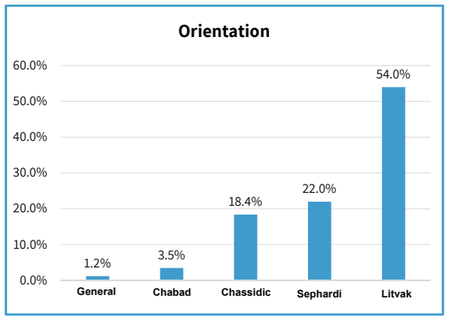


- Mapping of the age groups shows that the field of hi-tech is relatively 'young' in the Haredi society and about a third of the survey participants are aged 19-23.
- The average age of Haredi employees is 27.8 years
- Around 18% working in this field are 34 years old or older

SAMPLING CHARACTERISTICS

EMPLOYEES AND THOSE SEEKING WORK IN HI-TECH



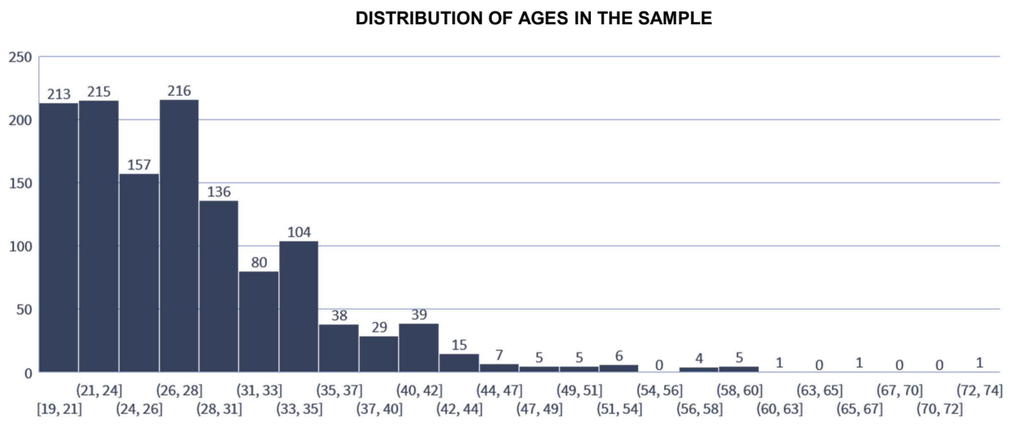


[* Nearly half of the survey participants belong to the Litvak stream. It may be assumed that the higher tendency of Litvak women to work in hi-tech is due to the fact that the rate of working men is relatively low and employment of the women has high economic significance for the household budget.

* About half reside in the central region and a third in Jerusalem. A relatively low number reside in peripheral areas.]

SAMPLING CHARACTERISTICS

EMPLOYEES AND THOSE SEEKING WORK IN HI-TECH



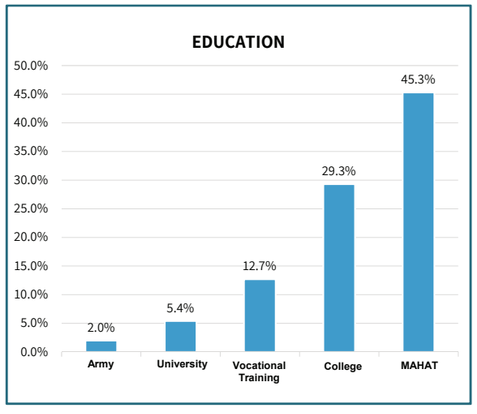
EDUCATION IN HI-TECH

The current survey examined education in hi-tech fields from three angles:

1. Education
2. Completion of studies
3. Participation of the Haredi sector in additional training programs as part of preparation for the job market

Figures are displayed below.

EDUCATION IN HI-TECH



Based on the data it emerges that:

1. Nearly half of all hi-tech employees from the Haredi sector are MAHAT graduates (one may assume these are graduates of the “Beis Yakov” Seminar)
2. About a third are college graduates
3. Only 5% are university graduates
4. Most of the respondents (94.2%) completed studies in the field

TRAINING AND PREPARATION PROGRAMS FOR PLACEMENT AND EMPLOYMENT

In this study we examined the effectiveness of the various programs which prepare hi-tech graduates for the world of employment. These programs can be divided into two main groups

1. Targeted training – Respondents were asked to point out which training courses they had taken. These included Kama Tech’s Ultra-code Program for seminar students, Temech training, She Codes and SNC.
2. Preparation for employment in hi-tech – The respondents were asked to note in which programs they had participated. These included various events, such as lectures, Kama Tech seminars, guidance centers and so forth, intended to minimize the amount of time spent looking for work by leveraging soft skills for the job market.

In each of the categories the difference in the length of time spent in searchomg for a job was examined, comparing those who mentioned Kama Tech in their answers with other options. The figures were as follows:

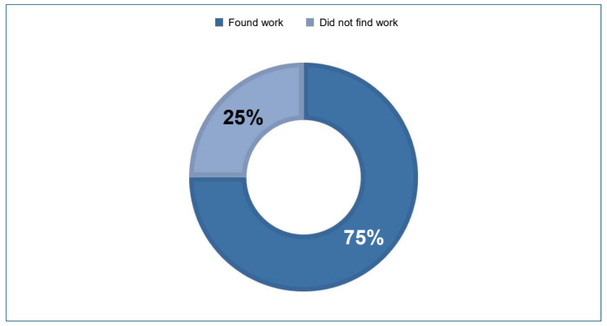
PARTICIPATION IN EMPLOYMENT PREPARATORY PROGRAMS | HI-TECH

Study participants were asked to note whether they had participated in hi-tech training programs offered to the Haredi sector, including:

1. General training programs offered by Kama Tech (lectures, seminars, training courses). This category includes respondents who mentioned participating in training through the Kama Tech initiative as well as those of other organizations. Therefore, the number of respondents in the second category includes only those who mentioned their participation in training programs not associated with Kama Tech.
2. The general training settings offered by other organizations (Temech, Guidance Center, Kivun, Mafteach and so forth).
3. 58% of the respondents had not participated in any training programs.

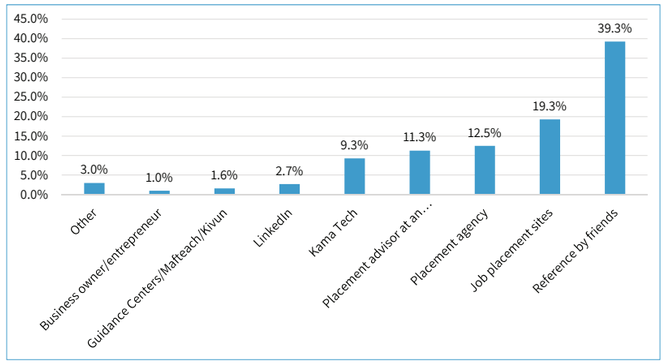
EMPLOYMENT | RATE OF EMPLOYED

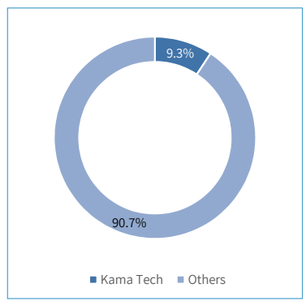
75% OF ALL RESPONDENTS FOUND WORK IN HI-TECH



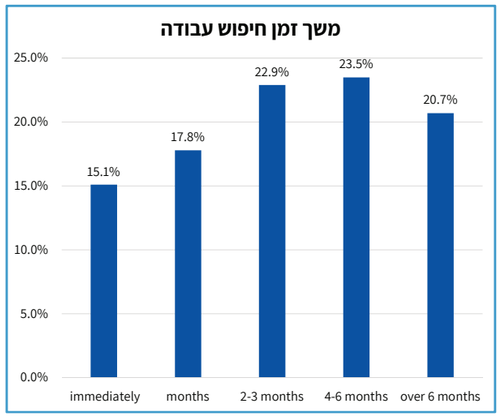
FINDING EMPLOYMENT IN HI-TECH

9% OF ALL HI-TECH EMPLOYEES FOUND WORK THROUGH KAMA TECH



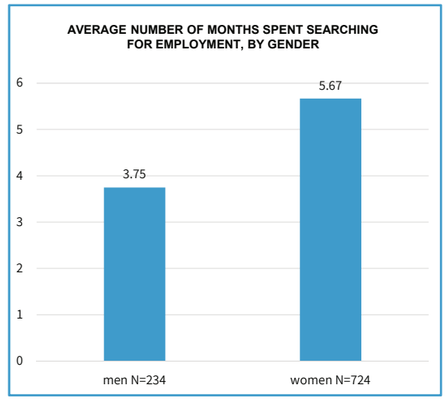


LENGTH OF TIME NEEDED TO FIND EMPLOYMENT | HI-TECH



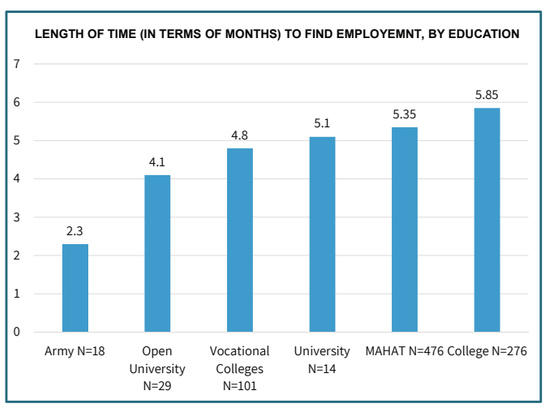
- The respondents were asked to note the length of time in terms of months until attaining their first employment position in hi-tech
- 15% find a position immediately.
- Half of the respondents reported a timeframe somewhere between two to six months needed in order to find employment.
- A fifth of the participants who found work report a timeframe of over six months of searching

LENGTH OF TIME NEEDED TO FIND EMPLOYMENT | HI-TECH



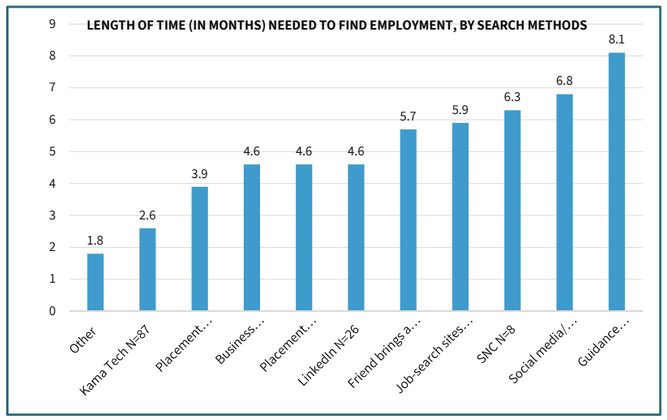
- Among the respondents the average number of months spent looking for employment is 5.2 months.
- An analysis by gender demonstrates that there is a clear difference between men and women regarding the length of time which passes from the completion of studies until finding employment. On average, men find work within a shorter timeframe than do women (3.75 months as opposed to 5.67 months, respectively).
- It can be assumed that there are fewer options open to women due to their requirement of a Haredi work environment, resulting in an extended period of job searching.

LENGTH OF TIME NEEDED TO FIND EMPLOYMENT | HI-TECH



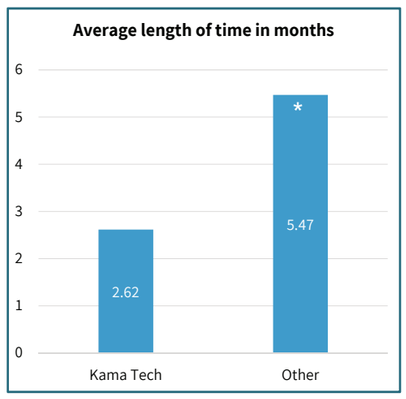
The data indicates that type of education appears to have little if any impact on the process of job searching. However, in comparison with the various channels of education, those who are army veterans are the quickest to find employment.
Nonetheless, it is important to be careful when approaching the data as for some of the educational institutions there was a low number of respondents.

LENGTH OF TIME NEEDED TO FIND EMPLOYMENT | HI-TECH



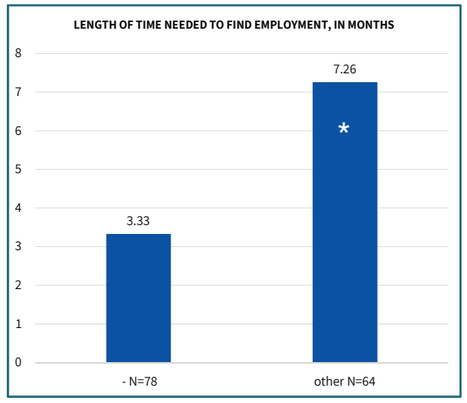
- Average length of time searching for employment as measured in months.
- The findings indicate that direct placement through Kama Tech takes an average of 2.6 months.

LENGTH OF TIME NEEDED TO FIND EMPLOYMENT | METHODS USED BY KAMA TECH AS COMPARED TO OTHER ORGANIZATIONS



- The findings indicated a clear difference in the average number of months need for employment placement when comparing between methods offered by Kama Tech and other means.
- Those placed through Kama Tech found work on average 2.6 months following the completion of their studies, as compared to 5.47 months on average among those who were placed through other means.

LENGTH OF TIME NEEDED TO FIND EMPLOYMENT | SPECIALIZED TRAININ



- 190 female respondents participated in specialized training, over 50% of them in Kama Tech's Ultra-code program.
- An analysis of the length of time searching for work shows that those who participated in Ultra-code found employment significantly faster than those participants of other training programs.

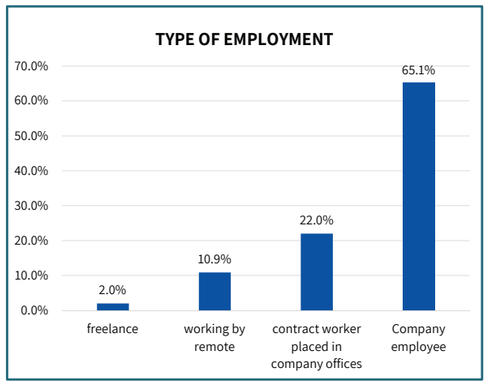
EMPLOYMENT | CHARACTERISTICS

Out of 1,277 survey participants, 75% found employment in hi-tech

Employment characteristics for the Haredi sector are measured on a number of scales:

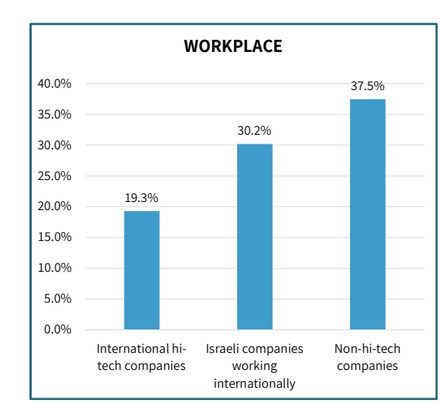
1. Type of employment: company employees, contract workers or freelancers
2. Workplace – Workplaces were mapped according to hi-tech companies as well as non-hi-tech organizations
3. Full-time or partial position
4. Daily work hours
5. Work environment – Haredi or secular, or secular adapted for Haredi workers
6. Seniority in the field of hi-tech

EMPLOYMENT | CHARACTERISTICS



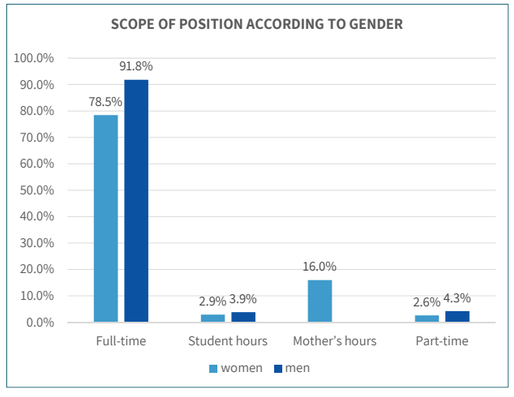
Most of the participants who found work were hired as company employees and the terms of their employment were superior to those hired as contractors.

EMPLOYMENT | CHARACTERISTICS



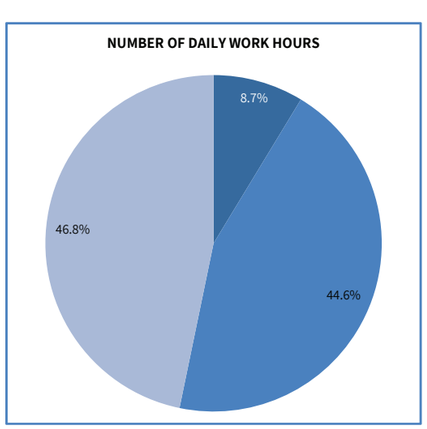
Only 20% were integrated into international hi-tech companies

EMPLOYMENT | CHARACTERISTICS



Most of the study participants who found employment report working full time.
The assumption is that there is little leeway in the position scopes offered in hi-tech and that very few of the positions available are for less than full time employment.
Even those who report working "mothers' hours" are likely referring to a temporary situation following maternity leave, when the job includes nursing hours and so on, and once this period is over they return to full time.

EMPLOYMENT | CHARACTERISTICS

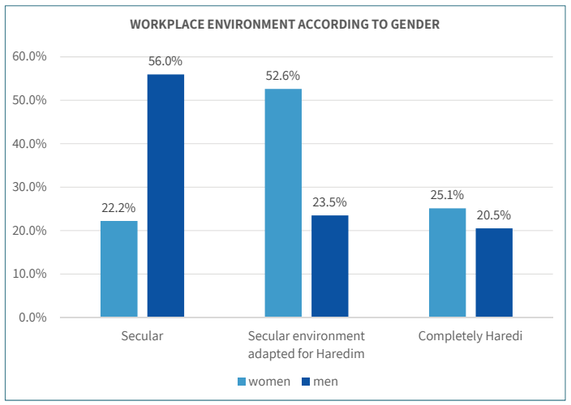


In keeping with the previous findings that most participants are employed full-time, it emerges that the majority report a work day of 8 or more hours.
The conclusions regarding differences between an 8-hour day and one of 9 or more hours stems in large part from terms of employment which include:

1. Differences between the private and public sectors
2. Differences in workplaces more oriented towards hiring

women in general and Haredi women in particular as compared to those companies without such orientations

EMPLOYMENT | CHARACTERISTICS

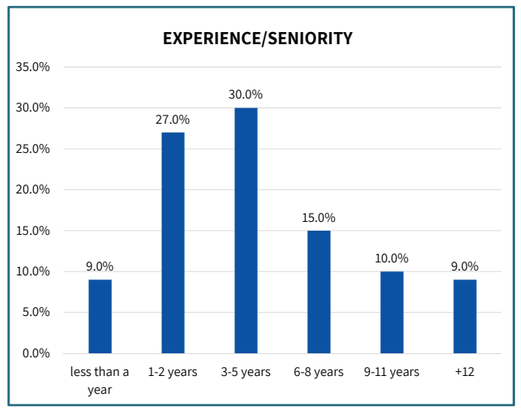


The findings indicate that 25% of all survey participants are employed in completely Haredi workplaces. It can be assumed that in general there aren't too many of such places of employment and that the majority of workplaces are not Haredi. Nonetheless, among those employees in non-Haredi workplaces, over half report conditions having being adapted by the workplace to suit the Haredi employee.

EMPLOYMENT | CHARACTERISTICS

- Those respondents who reported that their workplace is adapted for Haredim were asked about the level of adaptation by the workplace in this context (45% of the sample).
- The level of adaptation of conditions reported stands at an average of 3.92 (on a scale of 5, with 5 being the highest grade).

EMPLOYMENT | CHARACTERISTICS

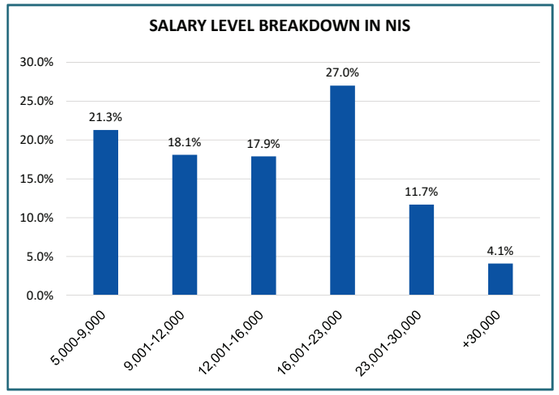


The field of hi-tech is a "young" profession in the Haredi sector, with the introduction of hi-tech subjects making their way into educational frameworks for girls in the Haredi community only in 2003-2004.
Findings confirm this statement and only 20% have been in the field for 9 or more years (10% between 9-11 years and 9% for over 12 years). Half of the participants have seniority of between 1-5 years.

EMPLOYMENT| SATISFACTION

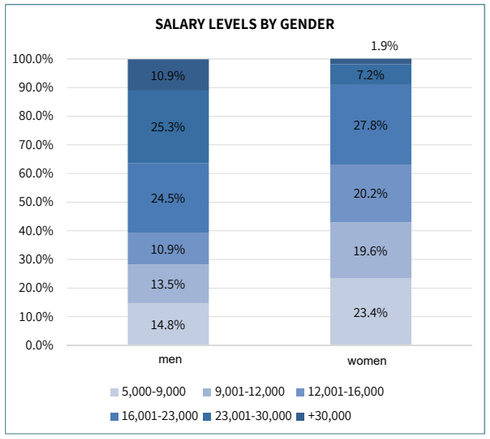
- The respondents were asked about their satisfaction with their promotions in their workplace (on a scale of 5, with the higher numbers reflecting greater satisfaction).
- Findings show that the average satisfaction rate regarding promotions at work stands at **3.37; in other words, the respondents are relatively satisfied with their rate of promotion in the workplace**.

EMPLOYMENT | SALARY

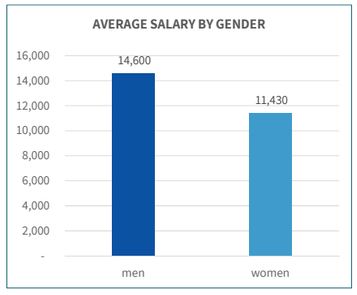


- The monthly salaries reported by the survey participants is divided into a number of categories, with the lowest being between 5,000-9,000 NIS ($1,470-$2,647) and the highest at over 30,000 NIS ($8,824).
- Findings indicate that the most common salary rate category is 16,001-23,000 NIS ($4,706-$6,765), with a third of all survey participants reporting this level.
- Only 4% of the respondents indicated earning higher than NIS 30,000.

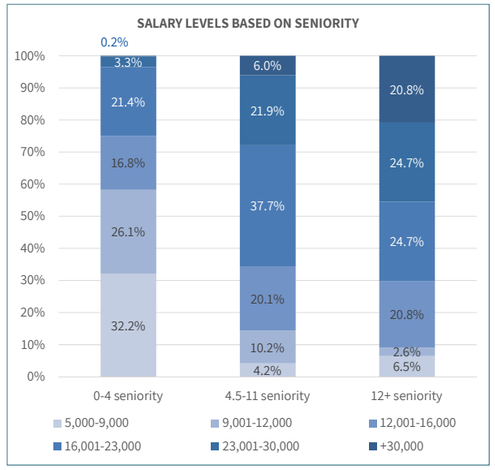
EMPLOYMENT | SALARY



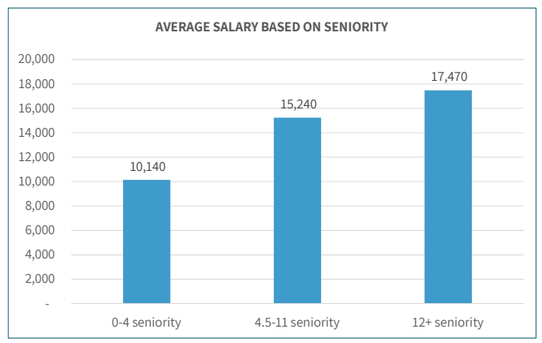
Significant differences were noted between the salaries of men and women. The percentage of men earning in the highest category was significantly greater than that of women.



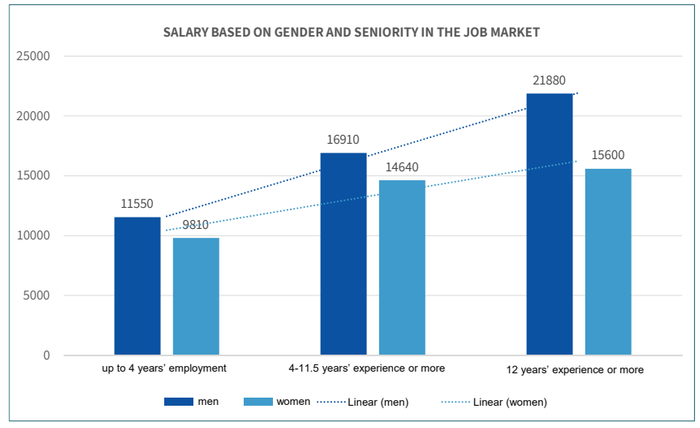
SALARY CHARACTERISTICS | SENIORITY



The increase in seniority is tied to salary increases and the differences in earnings between the various levels of seniority are clear. The significant "hike in salary" occurs in the first years of employment. However, as is known in the hi-tech world, the salary curve flattens out as the years of seniority increase because the greater part of the wage increase occurs in an employee's initial period of employment.

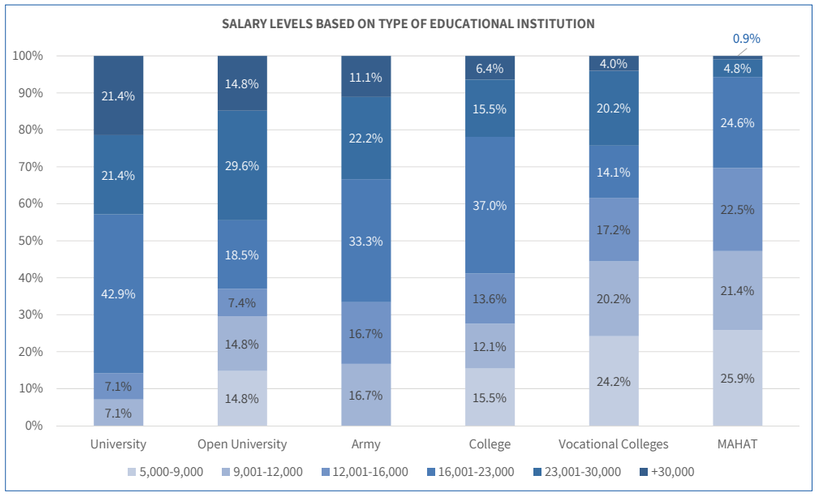


EMPLOYMENT | SALARY BASED ON GENDER AND SENIORITY



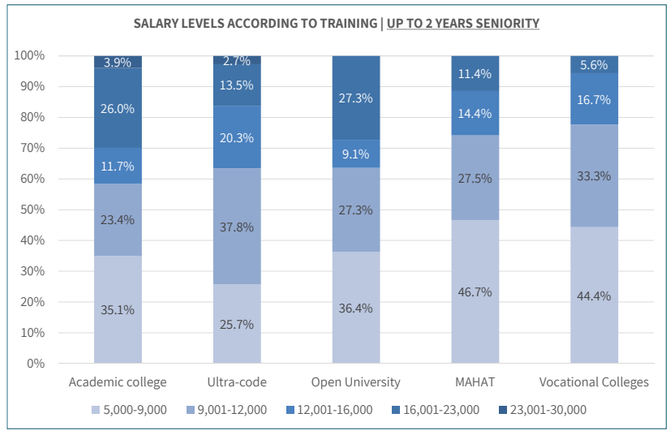
From an analysis of the salary differences based on gender and seniority, it emerges that as the level of seniority increases, so does the wage gap between men and women in the Haredi sector.

EMPLOYMENT | SALARY



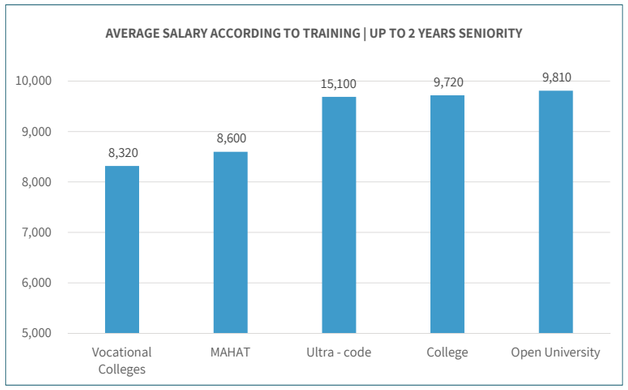
One can see that a high percentage of MAHAT graduates earn within the lower salary ranges as compared to the high percentage of university graduates and army veterans who earn within the higher salary ranges.

EMPLOYMENT | SALARY



A high percentage of college and “Ultra-code” graduates earn high level salaries in the initial two years of work, as opposed to graduates of vocational colleges and MAHAT of whom half their graduates earn low level salaries during this period.

EMPLOYMENT | SALARY



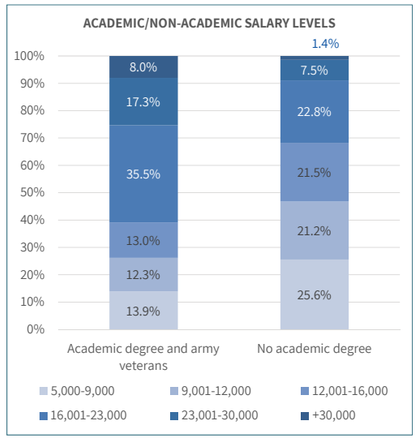
A high percentage of female college and “Ultra-code” graduates earn high level salaries in the initial two years of work, as opposed to female graduates of vocational colleges and MAHAT of whom half their graduates earn low level salaries during this period.

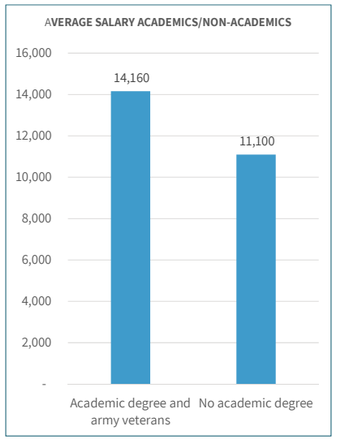
The salary of female “Ultra-code” graduates who were directly placed by Kama Tech stands at 15,100 NIS ($4,441) during the first two years of their employment

SALARY CHARACTERISTICS | EDUCATION

Due to the clear difference of salary level found between graduates of MAHAT and vocational colleges, and those from educational institutions which grant academic degrees and army veterans, whereby holders of academic degrees and army veterans are those who earn in the highest salary categories, the following findings look separately at those with academic degrees and those who have vocational or MAHAT diplomas.

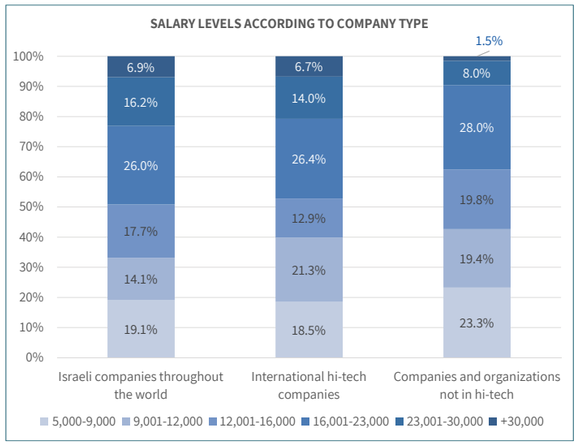
SALARY CHARACTERISTICS | EDUCATION





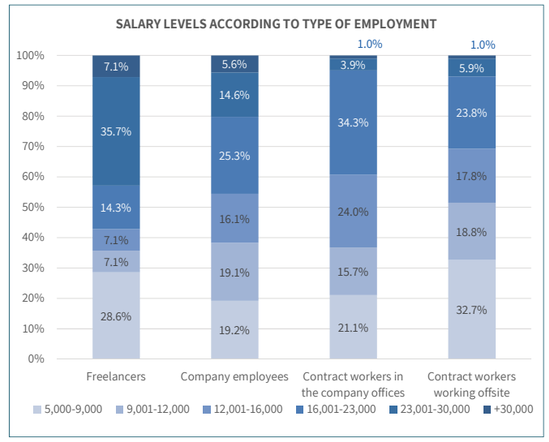
The percentage of those earning in the highest salary categories from among academics and army veterans is significantly greater than among non-academics.

SALARY CHARACTERISTICS | TYPE OF COMPANY



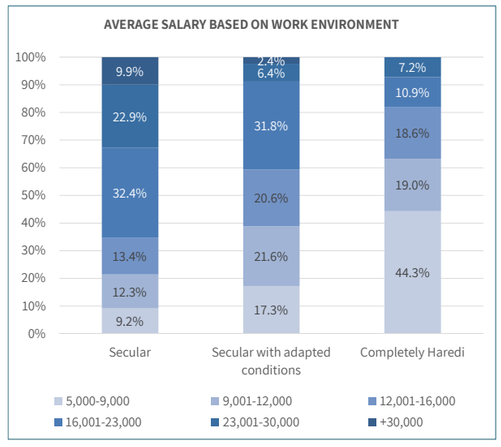
- Distinct differences were noted in salary levels according to the type of company in which the employees work. The sector which reported the highest salaries belongs to Israeli hi-tech companies working internationally.
- **Employee salaries in organizations and companies not within the field of hi-tech are significantly lower than those of employees in hi-tech companies.** One could assume these include the public sector, government offices, municipal authorities, and so on.

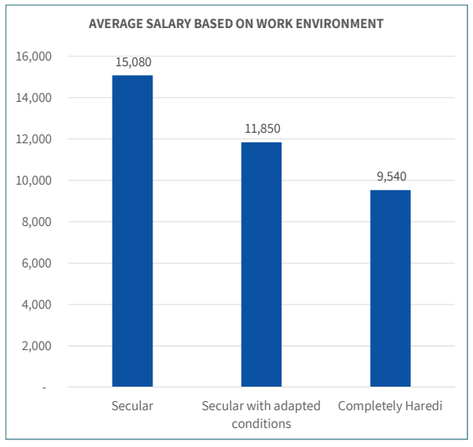
SALARY CHARACTERISTICS | TYPE



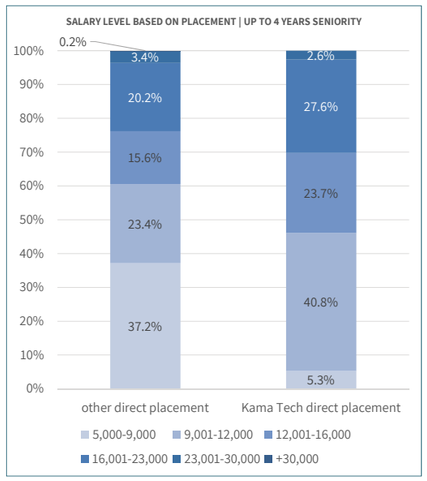
- An analysis of salaries based on type of employment reveals that the average salary for freelancers is the highest. Nonetheless, there is no way of knowing whether this is a result of the higher number of hours worked or due to “tough” negotiating vis-à-vis payment for their services.
- Company employees as well enjoy higher salaries, more similar to freelancers than to those earned by contract workers.
- As with other fields of employment in the economy, contract workers earn the least.
- **Clear discrepancies were found between company employee salaries and those of contract workers working offsite. Company employee salaries were clearly higher.**

SALARY CHARACTERISTICS| WORK ENVIRONMENT

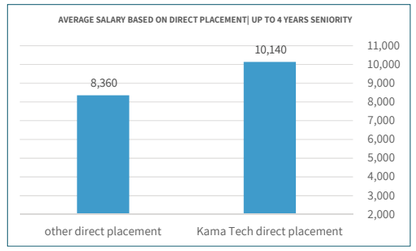




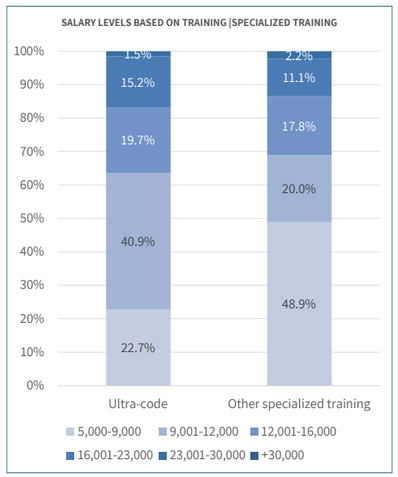
SALARY | JOB SEARCH METHOD



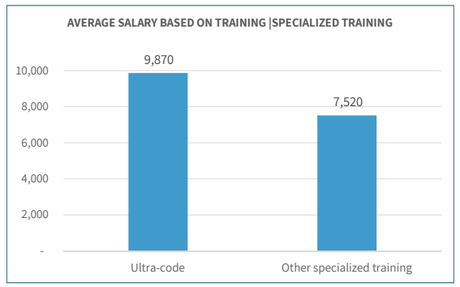
Given that seniority at work is a significant factor when analyzing salaries, we shall also examine the role of direct placement systems when analyzing salaries within the range of years of seniority as found in the survey. Figures indicate that up to four years of seniority a clear difference exists in the salaries between those who found work through Kama Tech and those who found it using other methods.



SALARY | SPECIALIZED TRAINING



Given that seniority in the workplace is significant when analyzing salaries, we will also examine the role of specialized training in salary analysis among those who have up to 4 years' experience.
In an analysis of salary differences only for those who have vocational diplomas (not university graduates) it emerges that those who underwent training with Ultra code make significantly more than those trained through other programs.



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