

## **Commencement of the 2020/21 Academic Year in the Midst of the Novel Coronavirus**

### **Even with the Significant Increase in the Number of Persons Enrolling in Higher Education, the Higher Education System Is Fully Prepared to Commence the School Year and Admit the Applicants**

- According to data recently collected from institutions of higher education, there is a significant increase of 20%-25% in registration for academic studies in all degrees.
- There has been a continued significant increase in the number of students, including women, in high-tech fields.
- Approximately NIS 1 billion in resources per year has been allocated to student assistance programs, including an assistance supplement dedicated to the coronavirus crisis in the sum of NIS 100 million.
- An additional NIS 70 million has been allocated for the advancement of digital instruction in order to develop technological tools and train techno-pedagogical staff.
- Education combined with experience – an investment of approximately NIS 24 million in employment-oriented academic courses.
- The launch of the Quantum Project in the sum of NIS 1.2 billion in collaboration with the Weapons and Infrastructure Development Directorate, the Innovation Authority, the Ministry of Science and Technology, and the Finance Ministry.

### **With the commencement of the 2020/21 academic year, approximately 320,000 students are expected to attend institutions of higher education.**

- **A total of 35,700 engineering students** – During the 2019/20 academic year, this was the most popular course of studies in Israel (approximately 18% of all undergraduate students). An additional 18,240 undergraduate students studied mathematics, statistics, and computer science. In total, approximately 54,000 students studied technological subjects.
- **The number of students commencing medical studies increased from 530 in 2009/10 to 800 in 2020/21.**

- **In the last decade, the number of first year nursing students doubled from 1000 to 2000.**

## **Increase in the Percentage of Women in Academia**

- **Women constitute approximately 60% of students in academia. From a multiyear perspective, there has been a significant increase in the participation by women at all degree levels:** Undergraduate degrees – 58%, graduate degrees – 63%, and doctoral degrees – 54%.
- **The “Equator Index” designed to promote gender equality was launched** in institutions budgeted by the Planning and Budgeting Committee (PBC) in order to increase women’s representation among senior faculty and in the administration of institutions of higher education.

## **Making Higher Education Accessible to Diverse Populations**

- **Making higher education more accessible to the socioeconomic periphery:** During the 2019/20 academic year, approximately 55,000 students, constituting approximately 31% of undergraduate students, came from towns located in low socioeconomic clusters (clusters 1-4). In academic colleges budgeted by the PBC, these students play a prominent part in enrollment, constituting 35% of the undergraduate student body, echoing the percentage of the population - 36% - living in these clusters.
- **Making Higher Education Accessible to Arab Society:** There are approximately 54,000 Arab students, constituting approximately 17% of all students in Israel, as compared to their constituting 20% of the total population. (This is an increase of 110% over the last decade.)
- **Program for Excellence Among Students of Ethiopian Descent:** There are approximately 4,060 students of Ethiopian descent, constituting approximately 1.3% of all students in Israel, as compared to their constituting 1.7% of the total populace (an increase of approximately 40% over the last five years).
- **Increased number of ultra-Orthodox Jewish students:** There are approximately 13,400 ultra-Orthodox Jewish students, representing approximately 4% of all students in Israel, as compared to their constituting 12% of the total populace (an increase of 45% over the last five years).

## **Internationalism in Higher Education**

- **OECD Ranking:** Israel is among the top ranked in the world in the percentage of persons with a post-secondary and academic education among persons aged 25-64.
- **We continue to promote internationalism in higher education:** There has been an increase in the number of postdoctoral and international students enrolled in advanced degree programs.

## **The Higher Education System Budget**

- **The higher education system has nearly doubled:** From ILS 6.9 billion (2010) to NIS 12.3 billion (2021).
- **Research fund budgets have tripled** – Within a decade, the annual budget for Israeli research funds has nearly tripled, from NIS 450 million to NIS 1,274 million.
- **There has been a significant increase in awards by competitive research funds (bi-annual average),** from approximately 177 in the 2009/10 academic year to 314 in the 2019/20 academic year (80% +).
- **Investment of hundreds of millions of ILS annually in research infrastructure**

**Prof. Yaffa Zilbershats, Chair of the Council for Higher Education's Planning and Budgeting Committee:** "The current decade has been characterized by excellence and amazing development in the academic system. The budgets enabled the system to expand its accessibility programs and open the doors of academia to all population groups. Additionally, there has been a significant increase in investment in research, funds, and infrastructure, as well as flagship subjects, such as data science and artificial intelligence, personalized medicine, and quantum science and technology. Similarly, the number of academic publications has increased, and thanks to the national program for strengthening high-tech subjects, a large number of students have enrolled in these fields, and engineering studies have become the most sought after course of study in Israel. The digital learning revolution is at its height and has enabled the system to carry out studies even in the age of the novel coronavirus. Similarly, the system has promoted entrepreneurial and innovation studies and the expansion of collaboration between academia and industry."

## **1. The Year of Covid-19 – A Revolutionary Switch by the Higher Education System to Online Instruction**

The 2020/21 academic year is expected to commence at 60 institutions of higher education amidst the ongoing "coronavirus routine" that has accompanied the academic system since the second semester of last year.

During the course of the second semester of the 2019/20 academic year, institutions of higher education and their students were forced to switch immediately to an online learning format. Here we must note that the fact that the foundations of online learning had already been established at these institutions in the framework of the multiyear plan allowed for the revolution to unfold successfully. The special efforts invested by institutions, students, the PBC, and the CHE have enabled the rapid transformation of the system and led, within a short few days, to workable solutions to the challenges presented by this new reality.

Studies continued primarily through online learning with the required adjustments being made. Institutions of higher education held semester exams for tens of thousands of students, and in practice, the academic year ended far more successfully than expected.

Research activities by institutions of higher education also continued and will continue to proceed under the necessary health restrictions, including limited on-campus presence. Universities responded to the need to open laboratories dedicated to researching the novel coronavirus, and they are diligently pursuing the research in their quest to find solutions for dealing with the virus.

There is no doubt that the Covid-19 crisis has placed complex obstacles before educational institutions, students, and staff, but, we see, based on data that the CHE collected over the course of the last month, that there is a significant increase of approximately 20%-25% in the number of students enrolling in institutions of higher education for the 2020/21 academic year.

In response to the economic difficulties that students are currently facing, institutions of higher education have increased their assistance programs and have provided grants and loans in significant sums in order to facilitate continued studies.

Furthermore, an additional assistance program was put together, in the sum of NIS 100 million, that has aided students through three central channels: Increasing the budget for the student assistance fund in the sum of NIS 40 million thus enabling the granting of 10,000 additional scholarships of NIS 4,000 each. Additionally, the State Lottery established a dedicated scholarship fund in the sum of NIS 50 million for students in Israel who suffered financial harm as a result of the crisis and who will volunteer in the community as part of the "Summer Vacation School" program. Similarly, the academic institutions themselves have offered aid to students to prevent dropping out and provide other necessary economic assistance.

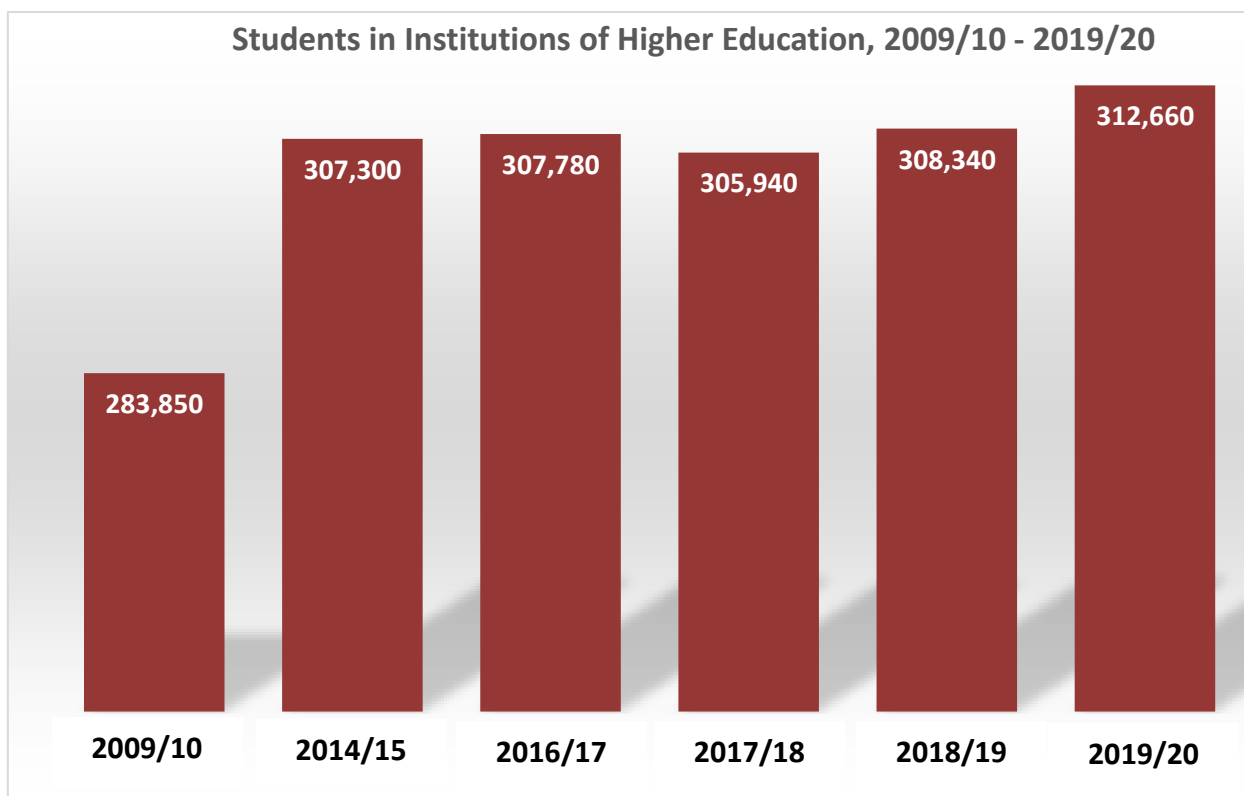
During the course of the last few months, the institutions have invested resources in improving their technological infrastructure to facilitate their distance-learning capability as well as train staff in digital instruction through pedagogical training seminars with the goal of giving staff members the tools to hone their lesson programs and teaching method to more closely suit the new educational reality.

A supplemental budget of NIS 70 million has been allocated for this process.

## 2. Significant Increase in the Number of Students – Primarily Undergraduate

In 2019/20, there was a continued increase of more than 4,000 in the number of students in all institutions of higher education, and it is expected that this increase will also continue during the 2020/21 academic year.

In the 2019/20 academic year, approximately 312,660 students were enrolled in 60 academic institutions,<sup>1</sup> including: 236,850 undergraduate students, 63,220 graduate students, 11,645 doctoral students, and 945 certificate program students.<sup>2</sup> This is the second year in which the number of students significantly increased in comparison to the stability that was observed in the higher education system since the start of the decade. In the 2018/19 academic year, the number of students grew by approximately 2,400, and in the 2019/20 academic year, this increase nearly doubled and comprised more than 4,300 students. The primary increase in the 2019/20 academic year was observed among undergraduate students. The number of graduate students has remained stable, whereas the number of doctoral students decreased by 0.6%.



<sup>1</sup> The student data appearing in this report were received from the Central Bureau of Statistics in coordination with and with the guidance of the Planning and Budgeting Committee of the Council for Higher Education.

<sup>2</sup> The data include those enrolled in the Open University. The Open University data do not include those who write studies. According to the Open University's data, this includes 3,283 undergraduate students and 190 graduate students during the 2019/20 academic year. The Open University reported these data to the CBS for the first time in the 2018/19 academic year.

Since the start of the decade, the number of graduate students has increased, from 50,270 students in the 2009/10 academic year to 63,220 students in the 2019/20 academic year. After consistent increases in the number of doctoral students, the increase slowed down, from 10,570 students to only 11,645 students between the 2009/10 academic year and the 2019/20 academic year.

### Multiyear View – Breakdown of Students by Degree

	<b>Total</b>	<b>Undergraduate</b>	<b>Graduate</b>	<b>Doctoral</b>	<b>Certificate</b>
1989/90	89,060	68,250	16,100	3,910	800
1999/2000	199,240	159,560	31,340	6,650	1,690
2009/10	283,850	221,810	50,270	10,570	1,200
2014/15	307,300	235,300	59,700	10,890	1,410
2018/19	308,340	232,365	63,200	11,720	1,055
2019/20	312,660	236,850	63,220	11,645	945

### Number of Undergraduate Students, 2009/10 - 2019/20

Field of study	1999/2000		2009/10		2018/19		2019/20	
	Numbers	%	Numbers	%	Numbers	%	Numbers	%
<b>Total</b>	<b>126,899</b>	<b>100.0</b>	<b>178,739</b>	<b>100.0</b>	<b>190,648</b>	<b>100.0</b>	<b>194,273</b>	<b>100.0</b>
Engineering	18,378	14.5	31,918	17.9	35,041	18.4	35,699	18.4
Social Sciences	24,793	19.5	41,171	23.0	34,324	18.0	34,358	17.7
Education and Teacher Training	22,842	18.0	22,502	12.6	31,683	16.6	30,885	15.9
Business Administration	6,762	5.3	19,463	11.1	18,711	9.8	20,164	10.4
Mathematics, Statistics, and Computer Science	10,849	8.5	9,122	5.1	16,780	8.8	18,243	9.4
Paramedical Studies	5,406	4.3	8,185	4.6	12,913	6.8	13,418	6.9
Law	9,932	7.8	15,790	8.8	12,223	6.4	12,410	6.4
Humanities	16,718	13.2	13,849	7.9	10,698	5.6	10,431	5.4
Art and Design	2,595	2.0	5,530	3.1	5,990	3.1	5,932	3.1
Biological Sciences	3,119	2.5	4,675	2.6	4,831	2.5	5,187	2.7
Physical Sciences	2,110	1.7	2,484	1.4	2,644	1.4	2,704	1.4
Medicine	1,214	1.0	1,457	0.8	2,047	1.1	2,035	1.0
Architecture	1,399	1.1	1,623	0.9	1,800	0.9	1,782	0.9
Agriculture	782	0.6	970	0.5	963	0.5	1,025	0.5

Comments:

1. The data do not include the Open University.

2. Engineering studies include the following fields: Electrical engineering and electronics, computer engineering and programming, information systems engineering, civil engineering, mechanical engineering, chemical and material engineering, industrial engineering and management, and other forms of engineering.

**Impressive achievement for the national plan to reinforce engineering and high-tech professions:** From 2019/20 data, we see that this is the third consecutive year in which engineering studies have the highest enrollment as compared to all other undergraduate courses in Israel (35,700 students, constituting approximately 18.4% of all undergraduate students).

Engineering studies have thus surpassed social sciences, which, throughout the years, had been considered the most popular course of studies in Israel. The strengthening of high-tech courses is also evidenced in the doubling of the number of students enrolled in mathematics, statistics, and computer science programs (18,243 students in the 2019/20 academic year as compared to 9,122 students in the 2009/10 academic year). In the last year alone, the number of students in the field increased by approximately 1,460.

The weighted data shows that one out of every four students (27%) in Israel studies engineering, computer science, mathematics, or statistics (53,950 students out of 194,273 undergraduate students).

The data further demonstrate that throughout the decade, there have been decreases of approximately 20% to 25% in law and business administration programs, which had been considered, at the start of the decade, to be very much in demand. The number of law students decreased from 15,790 in the 2009/10 academic year to 12,410 in the 2019/20 academic year, and business administration students decreased from a peak of 23,232 students in the 2012-2013 academic year to just 18,711 students in the 2018/19 academic year. However, in the 2019/20 academic year, the number increased to 20,164.

There has been a significant increase of approximately 64% in the number of undergraduate students who were enrolled in paramedical courses of study, from 8,185 in the 2009/10 academic year to 13,418 in the 2019/20 academic year. This increase arose primarily from the increase in students who studied nursing, from 3,070 to 7,180 during that same period of time.

The downward trend in the humanities has continued in 2019/20 as well: The CHE and the PBC attribute great importance to promoting the humanities systemwide, multidimensionally, and over the long-term in the framework of its multiyear plan. The PBC-CHE humanities steering committee will soon renew its work in order to formulate recommendations on the continued promotion of the issue.

**Large investments in the high-tech field – the PBC met its target for increasing the number of students in this field:** Pursuant to Government Decision 2292 dated January 15, 2017 on the subject of the "National Plan to Increase High-Tech Manpower," the PBC and the CHE invest significant resources with the goal of strengthening the high-tech fields, including by increasing the number of students in the following subjects: Computer science, electrical engineering and electronics, computer engineering, and information systems

engineering. During the first stage, the PBC allocated approximately NIS 700 million in order to meet this goal in universities, and today, we are able to say that the plan has had great success and the PBC surpassed the goal that the government had set – an increase of 40% in the number of undergraduate students in high-tech, which represents an increase of dozens of percentage points and, according to the growth forecast, the increase will reach 69% during the 2020/21 academic year.

During the second stage, the PBC allocated approximately NIS 150 million in order to augment the numbers of quality students pursuing advanced degrees in high-tech - who will serve as a reserve for future staffing - adjust the number of senior and junior staff as well as teaching assistants as a result of the increase in the number of students, and create a foundation for additional growth in the number of undergraduate students in the future.

As a supplementary step to increasing the number of students in high-tech, the PBC provided additional positions to academic colleges that teach these subjects. This significant increase in positions resulted in meeting the requested growth targets for high-tech professions starting already during the course of the previous multiyear plan and has further continued into the current multiyear plan, where in the last two years (the 2019/20 and 2020/21 budgets), additional positions were granted worth NIS 6 million annually to continue supporting the increased number of students in this field.

The developments in technology warrant an appropriate response from the academic world. Instead of the traditional distribution of departments and schools, academia is now working toward blurring the divisions and creating interdisciplinary curricula that will impart a variety of tools to graduates. Thus, students enrolled in high-tech, exact sciences, economics, and business administration programs will be able to integrate philosophy, literature and art, history, culture studies, etc. into their degree programs.

**Medicine:** First-year medical students in the four university schools of medicine numbered only 530 in the 2009/10 academic year. During the last decade, special efforts were made to address the significant dearth of doctors, and thus, Bar Ilan University opened an additional school of medicine in the 2011/12 school year in Safed, and last year, a school of medicine also opened at Ariel University. The growth of existing schools in the six-year plans and the opening of four-year tracks for the study of medicine has resulted in **approximately 800 students commencing medical studies in the 2019/20 academic year**, who will join the healthcare system after completing their studies. Of course, these moves required allocation of supplemental resources that were diverted in favor of this national objective, and there is no doubt that in the coming years as well, we will need to continue this increase in order to address the healthcare system's needs while collaborating with the Ministries of Health and Finance and all of the other entities relevant to the success of this mission.

**Nursing:** Over the last 10 years, the number of students commencing nursing studies has increased from **approximately 1,000 in the 2009/10 academic year to approximately 2,000 in the 2019/20 academic year, and currently, there are approximately 7,200 students** enrolled in the 13 undergraduate programs offered at both universities as well as colleges. This significant increase reflects the special efforts that the higher education system made in allocating supplemental resources and opening additional study programs whose purpose is to reduce the existing shortage in the nursing sector.





### **3. Women – Undergraduate Courses of Study**

- **From a multiyear perspective – continued growth in the percentage of women at all degree levels**
- **Doubling the number of female students studying computer science (as well as mathematics and statistics)**
- **A significant increase in the number of female students studying engineering**

The impressive increase in high-tech subjects also finds expression in the number of women studying them: The data shows that since the start of the decade, the number of female students enrolled in undergraduate computer science programs (as well as mathematics and statistics) has more than doubled, from 2,622 to 6,144 in the 2019/20 academic year. A significant increase of approximately 30% has also been observed in engineering studies: From 8,581 female students in the 2009/10 academic year to 10,984 female students in the 2019/20 academic year. These increases are also the result of the PBC's and the CHE's general plan for strengthening high-tech subjects, through which we have established financial incentives for institutions to provide scholarships and grants to students as well as seminars that will expose students to high-tech subjects and to offer a support structure that includes tutoring and personal support and guidance. Overall, the proportion of female students enrolled in high-tech subjects only from among students in mathematics, statistics and computer science, electrical engineering and electronics, and information systems engineering has increased from 24% in the 2015/16 academic year to 28% in the 2019/20 academic year.

In addition, as in the general population, the breakdown by fields of study among women in the past decade has been characterized by a decrease in social sciences (from 27,222 female students in the 2009/10 academic year to 23,705 female students in the 2019/20 academic year) and in law (from 7,695 female students in the 2009/10 academic year to 6,775 female students in 2019/20 academic year). Similarly, we note that in the past decade, a significant increase has been recorded in the number of female students in education and teacher training as well as in paramedical courses.

#### **Female Undergraduate Students – By Field of Studies – Throughout the Decade, 2010 - 2020**

	<b>2009/10</b>	<b>2012/13</b>	<b>2017/18</b>	<b>2018/19</b>	<b>2019/20</b>
<b>Total</b>	<b>97,955</b>	<b>106,596</b>	<b>110,354</b>	<b>111,257</b>	<b>113,002</b>
Education and Teacher Training	17,793	21,292	25,680	25,074	24,282
Social Sciences	27,222	27,544	23,501	23,759	23,705
Business Administration	9,180	11,809	11,044	11,182	11,730
Engineering	8,581	8,152	9,820	10,389	10,984
Humanities and Art and Design	11,910	12,066	10,751	10,660	10,572
Paramedical Studies	6,756	8,038	10,171	10,650	11,063
Law	7,695	7,949	6,914	6,585	6,775
Mathematics, Statistics, and Computer Science	2,622	3,154	5,127	5,602	6,144
Biological Sciences	2,985	3,091	3,258	3,335	3,613
Architecture	926	1,054	1,225	1,245	1,257

Medicine	804	980	1,302	1,205	1,211
Physical Sciences	899	886	1,039	1,054	1,107
Agriculture	582	581	522	517	559

\* The data do not include the Open University.

- **Women constitute approximately 60% of students in academia.**

The percentage of women students in the 2019/20 school year was approximately 59%, after a significant increase in the participation by women in academic studies, primarily in the 1990s. Women are currently the majority at each degree level: Undergraduate degrees – 58%, graduate degrees – 63%, and doctoral degrees – 54%. There has also been an impressive increase over the years in the participation by women in advanced degree studies. In the 1989/90 academic year, the percentage of women among those studying for a graduate degree surpassed 50%, and in the 2018/19 academic year, as previously noted, their percentage reached 63%. This increase in the percentage of women arises, among other things, from an expansion of the graduate degree programs at general academic colleges and academic education colleges, where the percentage of women has reached 65% and 81%, respectively. The percentage of women among doctoral students surpassed the 50% mark for the first time at the end of the 1990s and has increased in the last several years, reaching 54% in the 2019/20 academic year.

### **Multiyear View – An Increase in the Percentage of Women in Academia**

	1989/90	1999/2000	2009/10	2017/18	2018/19	2019/20
<b>Undergraduate Degree</b>	53.6	57.4	54.8	58.1	58.4	58.2
<b>Graduate Degree</b>	50.3	57.8	58.4	62.7	63.1	62.9
<b>Doctoral Degree</b>	41.3	51.1	52.7	52.8	53.2	53.8

- **The program for gender equality by increasing the representation by women in academic staff**

The problem of representation by women among senior academic staff has yet to be resolved. Thus, parallel to the actions taken to encourage women to enter high-tech studies, the PBC and the CHE, as part of efforts to increase the representation by women among senior academic staff and senior management in institutions of higher education as well, made a series of decisions to advance this goal pursuant to recommendations by the steering committee headed both by Prof. Rivka Carmi, the former president of Ben-Gurion University, and Prof. Ruth Arnon, the former president of the Israel Academy of Sciences and Humanities.

In 2019, Prof. Yonina Eldar of the Weizmann Institute was appointed to head the steering committee. The recently adopted program for "Gender Equality" that the committee formulated conforms to the principles established in order to increase the number of females in senior academic staff positions and is based on the recommendations of the steering committee, the main points of which are increasing awareness of gender

equality in institutions of higher education and hiring to - and promoting women in - academic staff, in general, and, in particular, in the fields in which women are especially poorly represented, such as the exact sciences and in the various fields of engineering.

Below are the main points of the program:

- ✓ **An output based index for the promotion of gender equality** in institutions that the PBC budgets has been published for the 2020/21 - 2024/25 academic years – the "Equator Index." The purpose of the index is to incentivize the institutions to review the challenges that they face in this field and take action to increase the representation by women among senior academic staff, in decision-making centers, and among senior academic officers and members of promotional and recruitment committees at these institutions, where in the long term, the goal is to achieve gender equality and parity between women and men in the senior staff and in senior positions at such institutions. Those institutions that participate in the program will be budgeted corresponding to the measure of their success in meeting annual targets defined by them in advance and approved by the CHE/PBC gender equality steering and assessment committee. Each year, these institutions will be ranked based on their total progress. The four leading institutions - two colleges and two universities - will win a special budget supplement.
- ✓ The determination of **criteria for the position of gender equality advisor to the president** - powers, profile, length of service, compensation, subordination, etc. - will be a precondition to entitlement to PBC support for the advisor's activities. In addition, as of the 2021/22 academic year, institutional compliance with the established criteria will constitute a condition to receiving financing for the advisor's activities.
- ✓ **Scholarships for outstanding female postdoctoral students** in the sum of up to \$80,000 (for two years).
- ✓ **Scholarships for female doctoral students in high-tech fields** in the sum of NIS 150,000 (for three years) and scholarships for female graduate students in high-tech fields in the sum of NIS 80,000 (for two years).
- ✓ **A competitive budget to support horizontal projects to promote gender equality in academia**, including focusing on encouraging women to enroll in postdoctoral programs abroad and then bringing them back and hiring them in Israel.
- ✓ **Updating procedures and guidelines** - Scholarships (Alon, Ma'of, etc.): Guidelines for opening a new course of studies; independent quality assessment reports, etc.; procedures for high committees for the appointment of professors.
- ✓ **Continuing to increase awareness of gender equality in the higher education system**, including continued submission of annual gender reports by the institutions.

#### 4. Making Higher Education Accessible to the Periphery

- In the 2019/20 academic year, approximately 50,000 students came from towns located in low socioeconomic clusters (including Arab and ultra-Orthodox Jewish towns).
- Over five years, there has been an increase of more than 12,000 students coming from towns located in low socioeconomic clusters (clusters 1-4).
- 35% of undergraduate degree students at colleges receiving their budgets from the PBC, come from clusters 1-4, similar to the representation of the same populations living in these clusters.

**Undergraduate Degree Students According to Type of Institution and Socioeconomic Cluster, 2019/20**

	Total		Socioeconomic Cluster				
	Absolute Numbers	Percentages	1-2	3-4	5-6	7-8	9-10
<b>Total Students</b>	<b>176,785</b>	<b>100.0</b>	9.0	22.0	23.3	39.0	3.8
Universities – Main Campuses	76,230	100.0	7.8	20.3	19.3	44.1	5.8
Colleges Budgeted by the PBC	64,590	100.0	10.4	24.5	28.7	31.7	2.1
Non-Budgeted Colleges	35,965	100.0	8.7	21.2	21.9	41.2	2.5

The sharp increase in the number of students in the last several decades is primarily expressed in significant achievements in expanding accessibility to higher education among the population living in the periphery and among weak population groups. In a special processing of data, the Central Bureau for Statistics examines the socioeconomic cluster of the town where the student resides at the time he or she was enrolled in the 12th grade. From this data, we see that between 2015 - 2020, there has been an increase of more than 12,000 students coming from low socioeconomic clusters 4-1 (comprising Arab and ultra-Orthodox towns), such that in the 2019/20 academic year, approximately 55,000 students, representing approximately 30% of all undergraduate students, came from towns located in these clusters.

Making higher education accessible to the geographic periphery is expressed primarily in the percentage of undergraduate students in colleges budgeted by the PBC, in which approximately 35% of students enrolled in

undergraduate programs come from towns located in clusters 1-4. This datum is similar to the proportion of the population living in these clusters, which is 36%.

**College openings led to a significant increase in the number of students in academic institutions in the southern and northern districts.** In the 2019/20 academic year, approximately one quarter of undergraduate students were enrolled in institutions located in the northern and southern districts (9.5% in the northern district and 14.5% in the southern district). The number of those studying in the northern district increased nearly threefold in comparison to the start of the 21st century, primarily as a result of the expansion of existing programs in the academic colleges in the north and the opening of new curricula. This significant change on the map of higher education in Israel, which occurred in the last two decades, would not have been possible but for the allocation of significant, necessary budgetary resources to the two socioeconomic periphery districts.

### Multiyear View – Undergraduate Students According to Districts of Institution

DISTRICT	1989/90	1999/2000	2009/10	2019/20
<b>Absolute Numbers – Total</b>	<b>55,250</b>	<b>126,900</b>	<b>178,740</b>	<b>194,273</b>
<b>Percentages – Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
North	..	5.3	9.2	9.5
Haifa	21.7	17.9	13.8	12.5
Tel Aviv	42.8	31.5	30.9	29.6
Center	4.1	15.9	17.4	18.4
Jerusalem	22.7	15.5	13.4	15.5
South	8.7	13.9	15.3	14.5

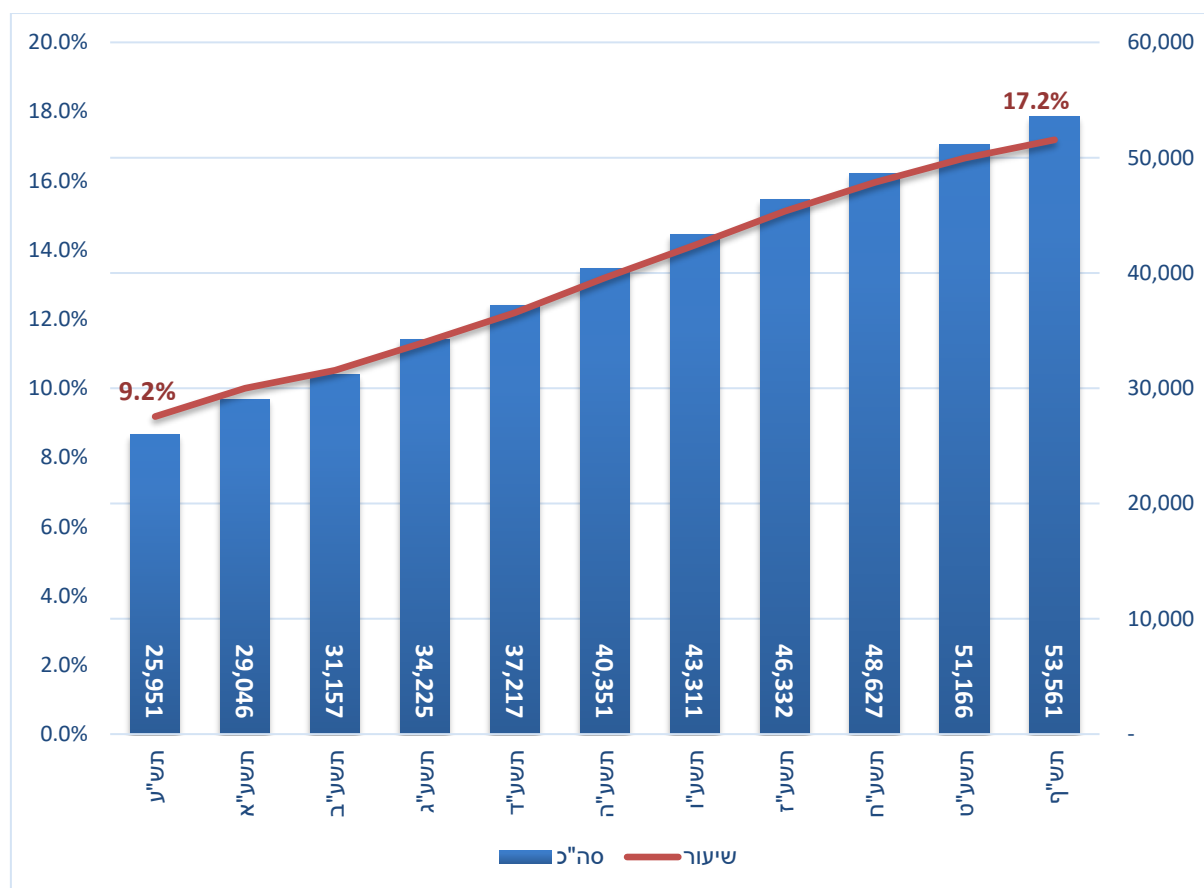
The data do not include the Open University.

## 5. Making Higher Education Accessible to Arab Society

**There are approximately 54,000 Arab students, constituting approximately 17% of all students in Israel, compared to their constituting 20% of the total population.**

- Within a decade, a greater than 110% increase in the number of Arab students (from the 2009/10 academic year to the 2019/20 academic year)
- Undergraduate degree – a 95% increase in the number of students
- Graduate degree – an approximately 180% increase in the number of students
- Doctoral degrees – an approximately 110% increase in the number of students

### Decade Overview: The Number of Arab Students Has More Than Doubled



In an approximately 110% increase since the beginning of the decade, the number of Arab students out of the total number of students in institutions of higher education crossed the 50,000 mark in the 2018/19 academic year and reached approximately 54,000 in the 2019/20 academic year.

In the 2008/09 academic year, the number of Arab undergraduate students was only 22,268, comprising approximately 11% of the total number of undergraduates in Israel. Approximately one decade later, there were 43,454 undergraduate Arab students studying in Israel, comprising 18% of all undergraduate students.

On the graduate level, the number of Arab students grew by 183% in the last decade. While in the 2008/09 academic year, only 3,270 Arab students were studying toward master's degrees in Israel, representing only 6.5%

of the total number of graduate students, by the 2019/20 academic year, their number increased to 9,252, representing approximately 15% of the total number of graduate students.

During the same period, there was a significant increase of 110% in the number of doctoral students, such that in the 2019/20 academic year, there were 855 Arab doctoral students - 7% of all doctoral students in Israel - compared to only 413 students in the 2008/09 academic year.

### **Multiyear View – Breakdown of Arab Students by Degree**

	<b>UNDERGRADUATE DEGREE</b>	<b>GRADUATE DEGREE</b>	<b>DOCTORAL DEGREE</b>	<b>TOTAL</b>
<b>2009/10</b>	22,268	3,270	413	25,951
<b>2010/11</b>	24,346	4,243	457	29,046
<b>2011/12</b>	25,843	4,847	467	31,157
<b>2012/13</b>	28,481	5,233	511	34,225
<b>2013/14</b>	30,969	5,692	556	37,217
<b>2014/15</b>	33,571	6,165	615	40,351
<b>2015/16</b>	35,758	6,929	624	43,311
<b>2016/17</b>	37,441	8,197	694	46,332
<b>2017/18</b>	39,160	8,708	759	48,627
<b>2018/19</b>	41,087	9,251	828	51,166
<b>2019/20</b>	43,454	9,252	855	53,561

**The increased integration of Arab students is a result of a comprehensive, holistic program implemented by the PBC starting in high school and continuing all the way through advanced degree studies.**

The number of students from Arab society in Israeli academia has doubled itself over the course of the last decade and is currently approximately 54,000 students. This significant increase is the result - among other things of a holistic program, broad in scope, implemented by the CHE and the PBC over the last eight years. The program commences in high school by providing exposure to academia and continues by incentivizing and providing reinforcement through all stages of academia, starting with preacademic preparatory programs, through undergraduate studies, continuing with support for advanced degrees – graduate degrees, doctoral degrees, and post-doctoral degrees, all the way through appointment of academic staff at institutions of higher learning.

The CHE’s Rowad (“Gate to Academia”) Program for high school students operates in approximately 45 regional clusters, bringing together 70 villages and towns. The program exposes young people to the available options and provides information and assistance in selecting a field of studies to students in 173 high schools catering to primarily Arab students, including support for relevant courses (e.g., psychometric, preparation for the yael exams in Hebrew and Amir exams in English), college tours, and a higher education fair in cooperation with local educational institutions.



There are dedicated support programs for Arab students in pre-academic preparatory programs and those studying for undergraduate degrees in order to reduce dropping out and improve academic achievement, including language enrichment (in Hebrew and English) as well as academic, economic, and social support.

The significant support during undergraduate studies is given primarily during the first (freshman) year as this is a year that is particularly rife with challenges and success during this first year reduces the dropout rate and significantly increases the likelihood of success in obtaining the degree. Furthermore, during undergraduate studies, through financing by the PBC with the participation of the Ministry of Social Equality and the Ministry of Education, the “Irteka” scholarship (administered by PERACH) is awarded each year to 800 new students starting their freshman year during each cycle, for a total of approximately 2,250 students annually. The scholarship accompanies the recipient throughout the entire degree program. The students are selected on the basis of their socioeconomic condition and enrollment in preferred fields of study in order to ensure variety in those fields of study that are in demand in the Israeli employment market and are underrepresented in Arab society, including, among other things, high-tech, psychology, and even the arts. This variation in fields of study is accomplished through a variety of PBC programs, such as Rowad, dedicated engineering tracks in preparatory programs, as well as an achievement program for high-tech studies, which brings youth from the socioeconomic periphery, including an extensive number from Arab society, into the world of high-tech.

Similarly, using PBC financing, dedicated career centers were established in academic institutions for Arab students in academic institutions, which assist in the preparation for the employment market. The PBC also supports excellence and grants scholarships to an extensive number of outstanding students from Arab society who are studying for advanced degrees, including research master’s degrees, doctorates, and postdoctoral fellowships. It also supports the hiring of outstanding faculty members from Arab society.

**Ma’of grants and hiring outstanding academic staff from Arab society:** From 2009/10 until 2018/19, the PBC granted approximately 51 Ma’of grants, for a total of approximately NIS 48 million, to outstanding Arab academic staff members. Ma’of grants are intended for outstanding young scientists from the Arab sector. Their purpose is to enable the grant’s recipients to be hired by institutions of higher education that are financed by the PBC in Israel - universities and academic colleges - in addition to existing tracks by adding dedicated budget lines. These institutions commit to accepting grant recipients as full-time staff members at the end of the scholarship period.

**The Gateway to Academia Program for Bedouin Students in Israeli Academia:** Following Government Decision Number 2397 dated February 12, 2017 on “The Plan for Socioeconomic Development within the Bedouin Population of the Negev 2017-2021,” the PBC resolved to encourage institutions of higher education to increase by 75%, compared to their current numbers, the overall number of Negev Bedouin students - including all students, from those who are recently admitted as first year undergraduate students through those completing the multiyear program. Accordingly, a target of at least 1,500 students from first years (freshmen) through the 2021/22 academic year has been set, with an emphasis on quality admission to degree and employment-oriented course programs. A joint professional team was organized to formulate policy on the Bedouin student project with representatives from the PBC/CHE and relevant government entities, including the Budget Division of the Finance Ministry, the Ministry of Agriculture (the Bedouin Administration), and the National Economic Council of the Prime Minister’s Office. After a comprehensive study and much thought,

the team recommended integrating the Bedouin students within the existing academic programs already budgeted for the general student population while providing holistic support geared to the unique needs of students coming from the Negev Bedouin community.

To that end, a number of models were examined, including the “Gateway to Academia” pilot program deployed in the Sapir Academic College, which provides for a separate preparatory stage for integration into academia sprinkled with distinct opportunities for meeting with the general student population to allay concerns and lessen the sense of estrangement among the two groups and thus facilitate optimal integration in the future. The program allows for actual participation in academic studies as well as preparation for quality integration in a range of undergraduate courses by furnishing a wide range of customized assistance, including study support, language enrichment, social and personal mentoring, financial aid, and summer programs. Accordingly, the PBC/CHE decided to expand the Gateway to Academia pilot program to a number of leading academic institutions in the Negev that the PBC/CHE budgets while adhering to the principles that the research and knowledge that were accumulated over the course of years of the pilot program proved to be imperative. In addition to the Gateway to Academia program, of course, a Bedouin student can also integrate into academic studies through the conventional admission procedures available to all students.

In the 2019/20 academic year, approximately 650 students, in two cycles, studied in the Gateway to Academia program. In the 2020/21 academic year, an additional approximately 500 students are expected to start the program. A budget of approximately NIS 225 million was allocated for the program for three sessions (the 2018/19 - 2020/21 academic years), of which NIS 130 million comes from the PBC and the remaining dedicated budget supplement comes from the Finance, Agriculture, and Education Ministries.

## **6. The Honors Program for Persons of Ethiopian Descent**

### **An increase of 38% in the number of Ethiopian students within six years**

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
<b>Total Number of Students of Ethiopian Extraction</b>	2,937	3,287	3,591	3,800	3,996	4,059
<b>Undergraduate Degree</b>	2,608	2,903	3,194	3,377	3,567	3,604

Data indicates that over the last five years, there was a 38% increase in the number of students of Ethiopian descent in all of the degree programs, from 2,937 students in the 2014/15 academic year to 4,059 students in the 2019/20 academic year. The multiyear plan set a goal to increase the number of students of Ethiopian extraction enrolled in undergraduate programs such that the percentage of Ethiopian students will be approximately 1.7% by the end of the multiyear plan in 2021/22, commensurate with their percentage of the population. In 2019/20, the number of Ethiopian undergraduate students was 3,604, representing 1.5% of all undergraduate students (nearly meeting the target).

In the 2016/2017 academic year, the PBC began formulating a comprehensive program to provide students of Ethiopian descent with accessibility to higher education. Until then, the matter was under the responsibility of the Ministry of Aliyah and Integration's Student Authority. A PBC steering committee, headed by CHE member Prof. Shifra Sagi, works on providing Ethiopian students with accessibility to higher education. Members of the public as well as academics, mostly of Ethiopian descent, comprise the committee.

During the course of its work, the steering committee mapped out the primary obstacles to integration of persons of Ethiopian descent into the higher education system and recommended to the PBC a series of measures based on a holistic approach to accessibility, beginning with the pre-academic stage. In order to increase the percentage of students admitted and the percentage of those graduating with an undergraduate degree, the program provides higher education information and guidance in hometowns, academic and economic support for students in preacademic preparatory programs, as well as academic and economic tutoring during the course of undergraduate studies. In addition, further to the government decision to transfer responsibility for the matter from the Ministry of Aliyah and Integration to the CHE/PBC, in the 2019/20 academic year, the PBC began offering NIS 10,000 undergraduate and graduate tuition scholarships ("Summit Scholarships" and "Continuing Scholarships") to Ethiopian students who have been living in Israel over 15 years.

At the same time and as a central feature of its policy, the steering committee is promoting a vision of excellence and leadership that includes support and encouragement for outstanding students throughout all degree levels, starting with undergraduate degrees and graduate research degrees, continuing with doctorates, and reaching all the way to the hiring of academic staff members of Ethiopian descent in institutions of higher education. This program facilitates a strive for excellence to flourish within the Ethiopian community as well as facilitates the realization of the academic and social potential inherent in the students.

The committee's resolutions are in the spirit of the cornerstones that were established in Government Decisions Number 1300 and 324 dated July 31, 2015 on the subject of "Government Policy for Advancing the Integration

of Israeli Citizens of Ethiopian Descent Into Israeli Society,” as to everything relating to narrowing gaps, to excellence, and to leadership in Israeli society.

## **7. Making Higher Education Accessible to Ultra-Orthodox Jews**

The CHE and the PBC dedicate significant efforts and resources toward making higher education accessible to the ultra-Orthodox Jewish population and integrate it into Israeli workplace and society. These efforts rely on two guiding principles: 1. The integration of ultra-Orthodox members of society who wish to do so into academia requires respecting their way of life and providing appropriate solutions to their academic and cultural needs. 2. Maintain an appropriate academic level.

The Makherim (ultra-Orthodox Centers) Program to expand accessibility to higher education for the ultra-Orthodox Jewish population was established in 2011. In the framework of the program, 15 dedicated academic centers were established for the ultra-Orthodox population, spread out all over the country and offering a wide range of fields of study. In 2017, the CHE approved a multiyear program for the 2016/17 – 2021/22 academic years for expanding accessibility of higher education to the ultra-Orthodox population. This program continues to develop dedicated frameworks for the ultra-Orthodox alongside integrating those among them who are so inclined into general campuses. The program emphasizes those fields in demand in the marketplace, in general, and among the ultra-Orthodox, in particular, including high-tech and paramedical fields, as well as training teachers, particularly in core curriculum subjects (mathematics, English, and the sciences).

**The total number of ultra-Orthodox students studying in institutions of higher education in the 2019/20 academic year stood at 13,400:** Approximately 11,270 for an undergraduate degree and approximately 2,130 for advanced degrees in contrast to 6,000 ultra-Orthodox students in all degree programs in 2010/11. The multiyear program’s target is 19,000 ultra-Orthodox students. The total budget that was dedicated to the multiyear (six year) program is approximately NIS 1.2 billion.

## **8. An Increase in the Number of Postdoctoral and International Students Enrolled in Advanced Degree Programs**

The Council for Higher Education and the Planning and Budgeting Committee set as a central goal of the multiyear program for the 2016/17 academic years the promotion of the internationalism of higher education, in general, and of instruction, in particular. The promotion of internationalism is key to raising the level of Israeli academia as well as its competitiveness. Internationalism effects this improvement primarily through outstanding students in advanced degrees and research staff, strengthening of international reputation, and the creation of diversity among the students and staff who are exposed to various cultures and perspectives and acquire language skills, etc. Moreover, advancing internationalism contributes greatly to the State of Israel diplomatically, socially, and economically. A good deal of research demonstrates that innovation grows out of international, multicultural environments, and therefore, internationalism is vital both to academia as well as a strong Israeli economy.

For the past two years, the CHE/PBC has employed a program for the promotion of internationalism in the higher education system based on two models: A model based on output for institutions in which there is already in place infrastructure for promotion of internationalism and a growth model for institutions just setting out in that direction. The program places an emphasis on bringing to Israel outstanding students in advanced degree and postdoctoral programs as a crucial means for achieving the above goals. In order to follow-up on the program's achievements, beginning in 2019, organized data was collected regarding international students in Israel with the help of the Central Bureau for Statistics. Data collected in the 2019/20 academic year, based on data collected in the previous academic year, 2018/19, show that there has been a significant increase, primarily in the number of postdoctoral students (16,000 in 2018/19 as compared to the target of 1,200), but also in the number of doctoral and graduate students. We note that despite the coronavirus, academic institutions and scholarship programs for outstanding international postdoctoral students report an increase in the number of candidates and registrants for advanced degrees in Israel.

## **9. Since the Beginning of the Outbreak of the Coronavirus, Almost the Entire Academic System Has Converted to Digital Learning**

**There are over 40 academic courses on the Campus IL platform funded by the PBC and Israel Digital.**

In the 2019/20 academic year, digital learning gained greater significance with the outbreak of the coronavirus and the need to move to an online learning format within a very short time. Within a few days, the higher education system adjusted to the new reality and ensured the continuity of studies into the second semester, including holding examinations and arranging for course completion. None of this would have occurred but for the special efforts of the institutions themselves and the emphasis that the PBC's multiyear program - for the 2016/17 - 2021/22 academic years - placed on promoting and implementing digital learning as a tool for developing innovation in instruction and learning, for expanding accessibility to higher education, and for bolstering the status of Israeli academia throughout the world.

To launch digital learning in institutions of higher education, the CHE/PBC, in cooperation with the Digital Israel headquarters in the Ministry for Social Equality, issued to budgeted institutions five invitations to tender (between 2016 and 2020) for production of digital academic courses. As of today, 24 academic institutions were awarded the tenders, with the Campus IL platform hosting over 40 academic courses, 35 additional courses being developed, and the international platform, IsraelX, hosting 25 other courses.

Student data indicate a significant increase in digital academic learning (whether for academic purposes or as "learning for life). Since the beginning of the coronavirus pandemic, the number of [remote/online] students has almost doubled, with currently over 200,000 students in the academic courses on the Campus IL and IsraelX platforms in addition to those in the thousands of courses taken [via other online formats].

To prepare for the challenges raised by the increased use of remote learning in higher education given the coronavirus pandemic and, simultaneously, to take advantage of the latent potential presented by new opportunities, the PBC formulated a plan to encourage the establishment and stabilization of infrastructure for the promotion and strategic development of digital learning in institutions of higher education. Such infrastructure will draw on technology; technological and techno-pedagogical human capital (training, support, development, integration of innovative tools for digital learning, etc.); and oversight, control, and data collection and analysis systems for the assessment and optimal development of digital learning.

## **10. The National Program for Quantum Science and Technology**

The National Program for Quantum Science and Technology - a joint program of the PBC, the Administration for the Development of Weapons and Technological Infrastructure, the Innovation Authority, the Ministry of Science and Technology, and the Ministry of Finance - aims to advance research and industry in that field in Israel. The program was launched in 2018 with the PBC approving the recommendations of the steering committee that it had appointed to allocate a dedicated budget of approximately NIS 200 million for development of the field in the framework of the multiyear program. These recommendations included establishment of programs for reinforcing human capital in the field, including a program for hiring staff and scholarship programs for outstanding doctoral and postdoctoral students as well as a program for the

establishment and upgrade of institutional research infrastructure. Concurrent with following the above recommendations, the PBC submitted an outline for an expanded program to TELEM (the Hebrew acronym for the National Infrastructure Forum for Research and Development, members of which include the above-named government ministries and the PBC).

Following the recommendation of TELEM's review committee, the program was expanded even further and stands today at approximately NIS 1.25 billion spread over six years. The expanded program, which the government approved in its entirety as part of the economy acceleration program in the summer of 2020, includes supplementary investments in development of academic research, including the leveraging of human capital in the field and upgrading research infrastructure as well as encouraging international cooperation in R&D and encouraging development of industry in the field.

### **11. NIS 150 Million for Development of Data Science Centers in Universities**

The field of data science refers to principles of - and development of methods for - the collection, storage, and analysis of data that are associated with a wide range of academic disciplines and commercial applications for drawing conclusions, categorization, forecasting, and creating knowledge on their basis. Data science also includes the development of tools that rely on the data collected and on the analysis thereof while addressing the human and social facets of the process. In the last several years, the field has experienced increased and accelerated growth and corresponding financial investment both on the part of industry as well as on the part of universities and private research institutes. Although the approach of placing data at the center of research is not new, during the last few years there has been a revolution in the field around the world, fueled by developments in dedicated communications, storage and data processing hardware, the continuous development of methods and algorithms, and the significant increase in the quantity and availability of data (to the point of becoming big data). These developments have also brought about the current revolution in artificial intelligence (AI) to the point that certain fields in data science, such as machine learning, have been identified as artificial intelligence and vice versa.

In 2018, the PBC approved the recommendations of the steering committee that it had appointed to allocate the dedicated budget that had been reserved for development of the field, in the sum of NIS 150 million, and primarily the recommendation to provide support for the establishment and strengthening of data science research centers in universities. Currently, these centers are operating, with the support of the PBC, in seven research universities in Israel. This past March, a competitive invitation to tender was issued for supplemental support of the research centers, the results of which are expected during the course of the first semester of the 2020/21 academic year.

At the same time, in July 2020, the IDSI (the Israel Data Science Initiative) - a national system for synchronizing the operations of the institutional research centers and leveraging it by means of collaboration between institutions and public entities, industry players, and entities from abroad - commenced operations. The IDSI comprises the heads of the university research centers and a director general selected through a competitive process. The overall budget for supporting the institutional research centers stands at NIS 120 million spread over four years with four million of that dedicated to budgeting IDSI operations. Lastly, during the past academic year, scholarship programs for outstanding doctoral and postdoctoral students continued their

activity, with a good deal of success, and pursuant to the steering committee's recommendations, a new track for research grants from the National Science Foundation is being launched that focuses on the intersection between data science and the social sciences and on the use of data collected by public bodies for advancement of research and for gaining insight for the betterment of the society and economy in Israel.

As a result of the importance that the PBC and CHE attribute to the field of data science, the CHE approved, in the framework of the multiyear program for the 2016/18 - 2021/22 academic years, over 30 programs in the area, two thirds of which are for graduate degrees with the remainder going for graduate degrees.

## **12. Education Combined with Practical Experience - the Bridge Between Academia and the Employment Market**

The PBC places great importance on fortifying the academia - employment continuum and encouraging innovation in education and learning to that purpose, which has even been defined as a central goal in the PBC/CHE multiyear plan. This educational innovation is based, among other things, on the understanding that students need to complete their studies with a toolbox that will help them integrate into the job market and deal with the many challenges that they will face.

In light of that, the PBC budgets a joint initiative with the Aluma Organization, in cooperation with the Edmund de Rothschild Fund, that encourages institutions to develop academic courses that integrate the students' practical experience in various organizations with their academic studies. In the framework of the program, institutions of higher education are incentivized to develop an institutional system that is responsible for the entirety of the learning process and development of courses that integrate academic components with practical experience and award students with academic credits toward their degrees. The program's budget is NIS 24 million spread over three years.

## **13. Research - Within a Decade the Annual Budget of Israeli Research Funds Has Increased Threefold.**

### **The PBC's annual budget for investment in research funds between 2010-2021:**

- Research fund budgets have tripled: From NIS 450 million to NIS 1,274 million.
- The National Science Fund budget has doubled: From NIS 284 million to NIS 576 million.
- The European R&D program budget has almost quadrupled: From NIS 145 million to NIS 574 million.<sup>3</sup>

### **The PBC's Participation in the Various Research Funds, 2009/10 to 2020/21 – Millions of Shekels**

	2009/10	2013/14	2015/16	2017/18	2019/20	2020/21
The Israel Science Foundation	284.200	375.000	460.810	542.619	566.020	576.020
The Fund with the Ministry of Defense	5.000	8.000	10.000	5.000	5.000	5.000
The Pazy Fund	3.181	4.304	7.878	9.610	12.500	12.500
European Framework Program	148.596	300.594	295.041	451.137	569.668	573.632
The Biomedical Fund	9.377	5.119	7.827	10.560	10.115	10.115

<sup>3</sup>The PBC's participation only, which constitutes 50% of the State of Israel's membership fees in the program, as set forth below.



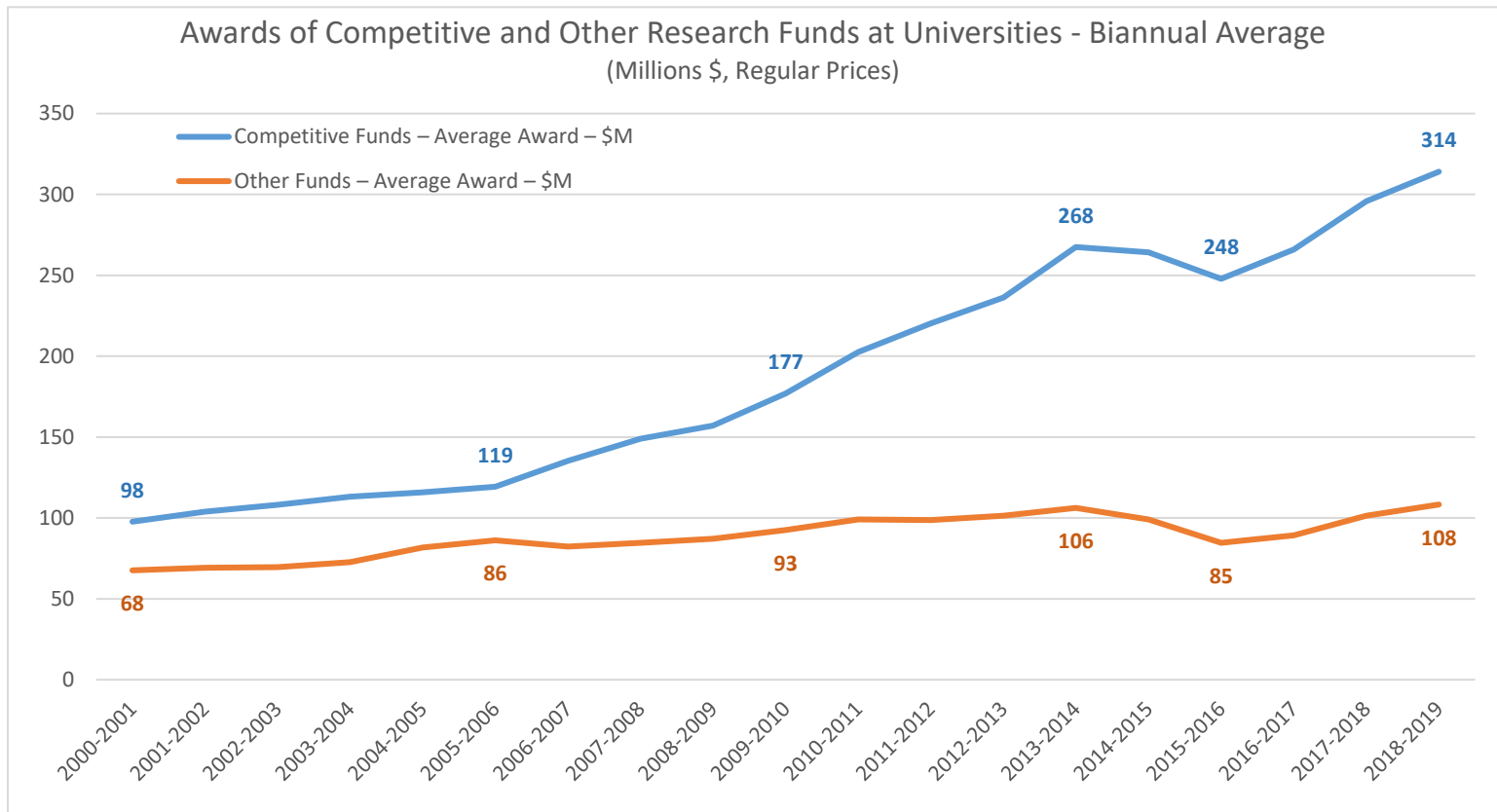
GIF	-	-	3.120	2.718	3.003	2.665
BSF	-	-	17.090	23.852	35.500	37.475
The China Israel Fund	-	7.642	23.786	36.446	38.000	38.000
The India Israel Fund	-	0.303	9.967	11.331	11.700	-
The Israel Singapore Fund	-	-	-	4.218	7.300	6.800
Britain-Israel Fund	-	-	-	-	-	11.700
<b>Total Utilization</b>	<b>450.354</b>	<b>700.962</b>	<b>835.519</b>	<b>1,097.491</b>	<b>1,258.806</b>	<b>1,273.907</b>

**Unprecedented investment in research:** Since the start of the decade, there has been an almost threefold increase in the annual budget for Israeli research funds. The budgetary increase is the result of the PBC’s policy that views these research funds as the backbone of basic competitive research whose reinforcement is essential and necessary in order to preserve the State of Israel’s international status. The budgetary supplements enable an increase in the number of research grants, an increase in the amount of research grants and an improvement of their quality.

- The most significant increase in the local research funds budget is reflected in the **increase of the National Science Fund** budget, from NIS 284 million in the 2009/10 academic year to NIS 576 million in the 2020/21 academic year. The National Science Fund is incorporated as an association whose purpose is to “assess, select, and support proposals for basic research in the humanities and social science, life sciences and medicine, and exact sciences and technology by providing research grants for basic research proposals that will be selected through a competitive process on the basis of scientific excellence and quality.”
- **An increase by 3.8 of the European R&D Program:** The PBC’s participation in the fees for membership in the program stands at 50% of the State of Israel’s membership fees in the program. The PBC’s participation in the program grew from NIS 149 million in the 2009/10 academic year to NIS 574 million in the 2020/21 academic year. Israel’s share in the European R&D programs was determined according to the ratio of the Israeli GDP to the total European GDP.
- **Since 2013, the PBC also finances the NSF-BSF research grant program:** This is a prestigious program for scientific collaboration between Israeli and American researchers. The program distributes research grants within a series of fields of research, including: Exact sciences, engineering, and computer science (the STEM subjects), natural and life sciences, earth and environmental sciences, economics, psychology, etc. In the 2020/21 academic year, the program was budgeted for a total of approximately ILS 37.5 Million. For Israeli researchers, this is a particularly important program that significantly increases opportunities for research in collaboration with the American scientific establishment, considered to be the leading scientific establishment in the world.

## 14. Multiyear View – Significant Increase in Awards from Research Funds and Academic Publications

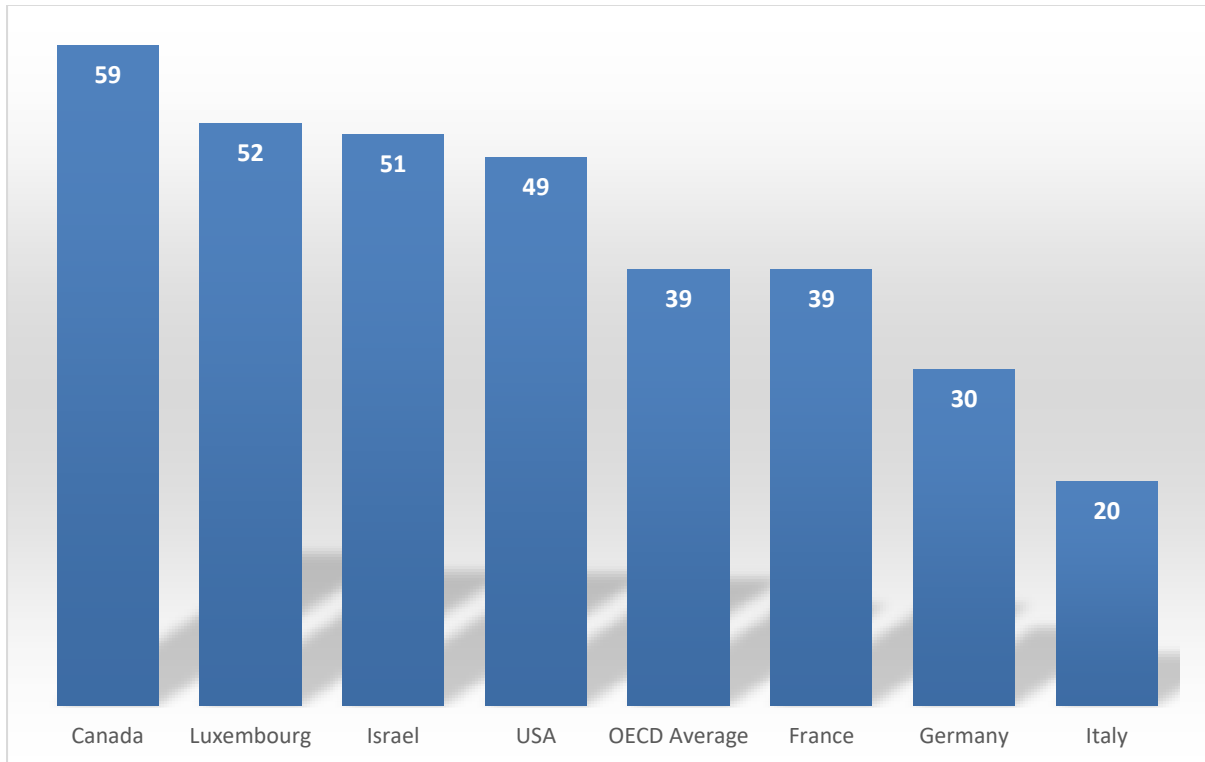
In the last decade, there has been a twofold increase in the total winnings of competitive research grants, the decided majority of which (approximately 80%) is for the awarding of grants by the Israel Science Foundation and the European R&D Fund. The highest total of awards is in medical and life sciences (approximately 40% of all awards), and it has been relatively maintained over time. However, the most significant increase in terms of percentages is in engineering, mathematics, and computer sciences, where the total awards has increased by 2.5 since 2008/09.



**15. OECD Ranking: Israel Is Among the Top Ranked in the World in the Percentage of Academics With a Post-Secondary and Higher Education Among Persons Aged 25-64.**

The most recently published OECD report (September 2020) ranked Israel among the highest in the world, after Canada and Luxembourg, in the percentage of citizens aged 25-64 possessing a post-secondary or academic education (51%). Israel has thus maintained its high placement for several consecutive years now.

**The 2020 OECD Report: Percentage of Academics With a Post-Secondary and Higher Education Among Persons Aged 25-64**



## 16. Doubling the Budget of the Higher Education System

After a decade (2000-2010) that was characterized by a sharp decrease in research and development budgets, the current decade has been characterized by an almost doubling of the higher education system budget, from NIS 6.9 billion in 2010 to NIS 12.3 billion in 2021, the highest budget ever allocated for higher education in Israel.

