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COUNCIL FOR HIGHER EDUCATION

הוועדה לתכנון ולתקצוב | Planning & Budgeting Committee



# The Higher Education System in Israel 2014

The Council for Higher Education  
The Planning and Budgeting Committee

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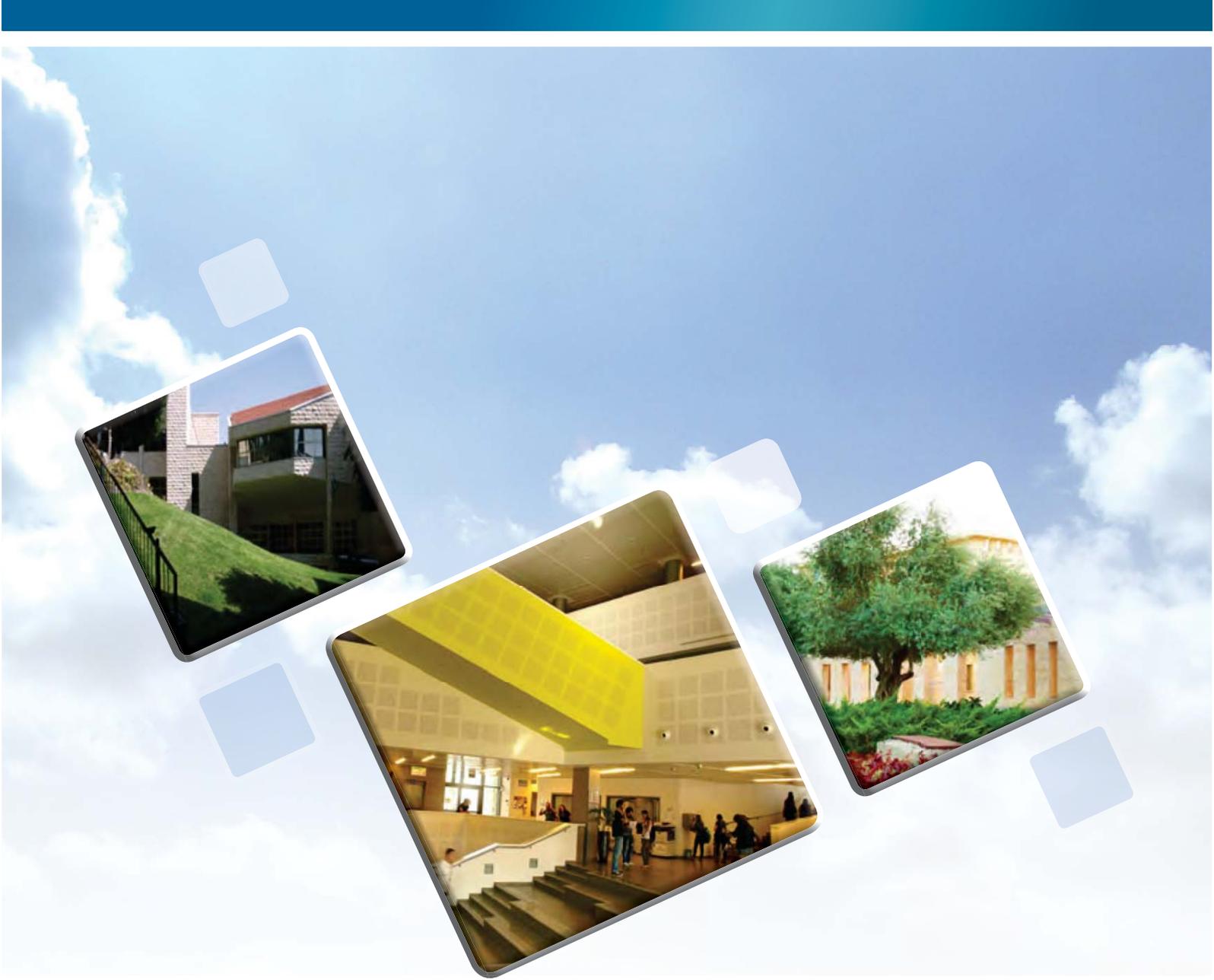
We hereby present "*The Higher Education System in Israel, 2014*" booklet. The first part of this booklet provides an updated and comprehensive picture of the higher education system in Israel, and the second part summarizes the main activities and future directions of the Israeli higher education policy.

Most data presented in this *booklet*, as well as other data in our possession, are collected annually from institutions of higher education by the Central Bureau of Statistics (CBS) and in coordination with the Planning and Budgeting Committee (PBC) of the Council for Higher Education (CHE).

The collected data are of utmost importance as they are a fundamental tool in the planning and budgeting work of the CHE and PBC. In addition, these data form the national source of information regarding the main diverse and challenging aspects of the higher education system in Israel.

We wish to thank the personnel of the Higher Education and Science Sector at Department A —Education and Teaching Staff of the CBS for the long-term collaboration; and, of course, we wish to thank the institutions of higher education for the fruitful collaboration with the CBS and PBC.





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## Words from the Chairman of the Planning and Budgeting Committee

Dear members of the higher education family,

I am pleased to present to you, as in previous years, a collection of data for the 2014 Higher Education Conference.

The multiyear program, which we launched in 2010/11, is currently running at full steam for the fourth year. Through this program, we promote the objectives that we have set: re-focusing on excellence in research and in teaching, and improving accessibility to higher education to the Haredi (ultra-Orthodox Jews) and Arab sectors.

Approximately 1,200 young quality staff members have been recruited by the institutions of higher education during the past four years, bringing forth the message of innovation and consolidation of the system. Twelve new Centers of Excellence have been established as part of the I-CORE flagship program and, together with the first four centers, form a focal point of groundbreaking research activity. The Haredi Academic Framework Program for ultra-Orthodox Jews continues to expand and admits new students to a variety of fields and from all over the country. The program for Higher Expanding Access to Education for the Arab Minority is also gaining momentum; in particular, we are pleased with the launch of a scholarship foundation – the first of its kind – for hundreds of Arab undergraduate students in the fields of engineering and science, in collaboration with various governmental and philanthropic bodies.

We have also been blessed in this past year with the renewal of the leading team of the CHE-PBC: Prof. Hagit Messer-Yaron was appointed Vice Chair of the CHE and Mr. Gadi Frank was appointed Acting Director General of the CHE-PBC. Since then, we have worked as a unified and harmonious team, with the important and unequivocal encouragement and support of the Minister of Education, Rabbi Shai Piron.

A number of committees that were created by the CHE and PBC cope with issues that are highly important for the system, including scientific

publications in the Humanities, non-budgeted programs, and the mapping of research infrastructures. There is no doubt that the Governance Committee – headed by Prof. Messer Yaron – is of particular importance, as it discusses the fundamental issues of the structure of the CHE-PBC and of the interface with the government.

Clearly, we cannot yet rest on our laurels; the road ahead is still long and work is plentiful. Soon, we will begin the thinking process towards forming the next five-year plan, which is expected to consolidate the achievements, stability, and fortitude of the system. This plan will ensure that we will not experience any more "lost" decades, but, rather, a steady and long-lasting growth.

I hope that the data presented in this booklet will be of assistance for us all and provide food for thought about what and how we can continue to improve; indeed, it is our common task to advance higher education for the sake of science, for the younger generations, and for the State of Israel.

With best regards,

A handwritten signature in black ink, appearing to read 'Manuel Trajtenberg', with a long horizontal flourish extending to the right.

**Prof. Manuel Trajtenberg**

Chairman of the Planning and Budgeting Committee

## Words from the Vice Chair of the Council for Higher Education

Ever since its establishment in 1948, the state of Israel has regarded education and academic studies to be a major resource in shaping the society and the state. The enactment of the Council for Higher Education Law in 1958 was intended primarily to guarantee the academic level of the higher education system, and its quality control, while maintaining the academic freedom of the institutions.

At its outset, the higher education system comprised a small number of institutions of higher education, some of which were established and operated before the establishment of the State. Over the past two decades, however, the higher education system has undergone dramatic changes that were manifested, for instance, in the number of students and in the number and types of institutions of higher education. At present, 66 institutions of higher education operate in Israel, including research universities, the Open University of Israel, publicly and non-publicly funded academic colleges, and academic colleges of education. Such a development lays great responsibility on the Council for Higher Education, which aims to guarantee constant improvement in the academic and professional levels of the institutions of higher education, while adapting working procedures to the changing reality.

To strengthen the system of higher education in Israel, improve its operation, and increase its ability to meet national objectives, we face two major challenges:

**The Challenge of Governance:** the governance system of higher education in Israel — comprising the CHE and the PBC — was formed in the decades prior to the 1970s to meet contemporary needs and requirements. However, the dramatic developments in the field of higher education and the widening of its destinations and goals require a re-examination of this system, therefore, last December, the Prime Minister and the Ministers of Education and of Finance appointed a **Committee for the Re-Organization of the Governance of the Higher Education System** to recommend the required adaptations. Accepting and fully implementing the recommendations of this

committee is crucial for the establishment of a suitable infrastructure for the higher education system for decades to come.

**The Challenge of Academic Regulation:** The academic accreditation system aims to ensure an adequate academic level; however, the interaction between this system and the institutions of higher education is bureaucratically complicated and is inconsistent in the manner in which it treats different institutions. A reform in this area is, therefore, undoubtedly required. A regulation based upon a "modular autonomy", namely, upon creating a differential model to increase the autonomy of institutions in matters that currently require CHE approval, appears to be promising. The level of autonomy of the institution will be determined by clear and transparent criteria of "academic fortitude" as set by the CHE. Along with autonomy, control processes will be reinforced and strengthened.

Great challenges lie ahead, which are crucial for the future of the higher education system.

Working together, we will prevail!

With best regards,



**Prof. Hagit Messr-Yaron**

Vice Chair of the Council for Higher Education

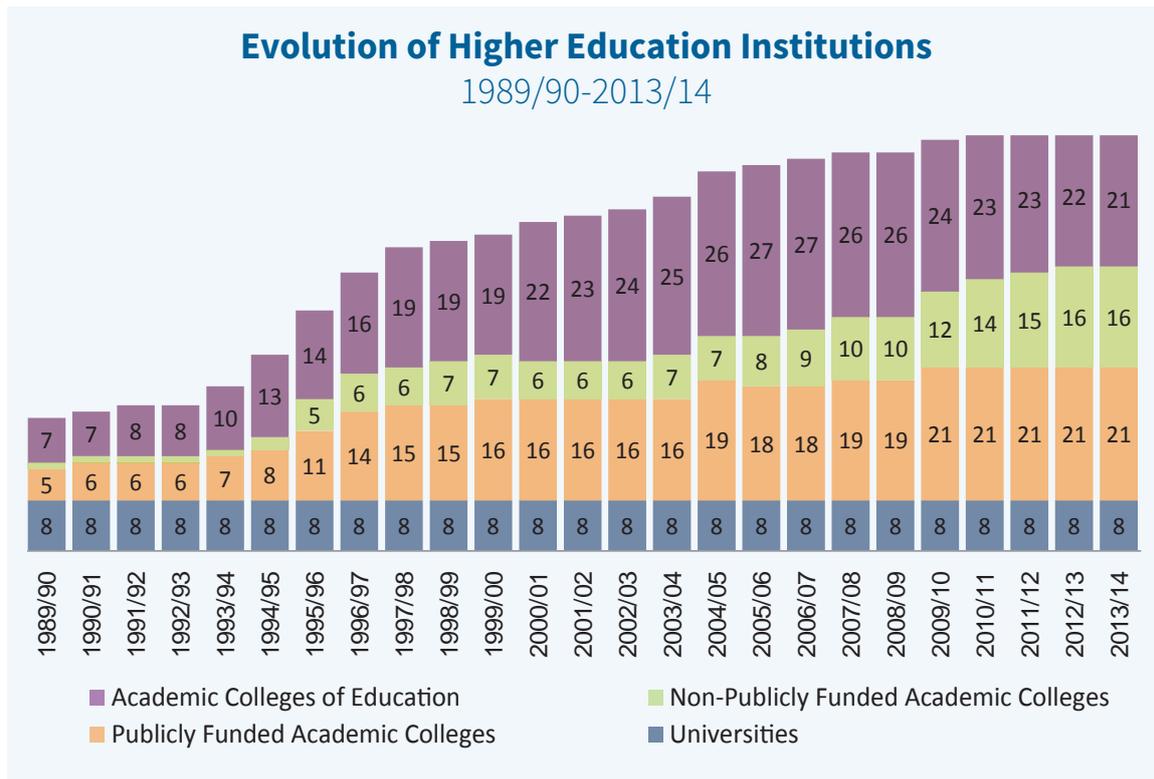


# Facts and Figures



## Facts and Figures

- In the academic year 2013/14, some 66 institutions of higher education are operating throughout Israel, including 7 research universities, the Open University of Israel, 37 academic colleges<sup>1</sup> (21 of which are budgeted by the PBC and 16 are non-publicly funded colleges),<sup>2</sup> and 21 academic colleges of education (teacher-training colleges).



- According to the estimates of the PBC, in the academic year 2013/14, 308,335 students studied for a degree in any of the institutions mentioned above (including the Open University of Israel). Of these, 236,770 were undergraduate students, 59,700 were Master degree students, 10,650 were doctoral students, and 1,215 studied for a diploma.<sup>3</sup>
- Over the past two decades, the higher education system has undergone some dramatic changes, manifested, among other factors, in the number of students attending institutions of higher education. In the

1 At this stage, data regarding Ariel University are included in the data of the academic colleges to maintain data consistency and to allow comparisons between years.

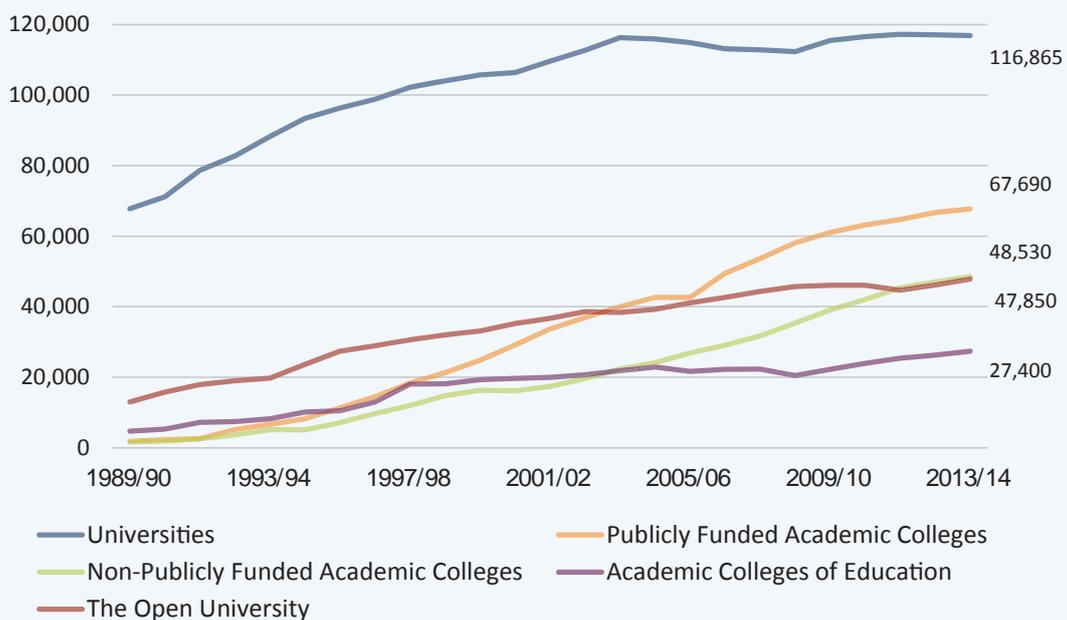
2 The non-publicly funded colleges are those not funded by the PBC.

3 Currently, the most updated CBS data regard the 2012/13 academic year, and the data for the 2013/14 academic year are based on estimates of the PBC for the beginning of the academic year.

1990s, the system was characterized by a rapid and significant growth in the number of students. The heavy demand for academic studies, and the opening of new institutes of higher education in response to this demand, resulted in an annual average growth rate of 8.1% in the overall number of students, and in an even higher average annual growth rate in undergraduate students – 8.7%.

### Students in Institutes of Higher Education by Institute Type

1989/90-2013/14



Comment: data regarding academic tracks under university auspices is included in the data for academic colleges funded by the PBC.

- In contrast with the vast expansion of the 1990s, the 2000s were characterized by a significant decline in the growth rate of the number of students, around 3.5% on average per year, similar to the growth in number of undergraduate students. This deceleration was the result of severe budgetary cutbacks imposed on the institutes of higher education, including, among others, limiting the increase in the number of students. At the beginning of the current decade, the PBC and the Ministry of Finance signed a multiyear plan for the higher education system, which incorporates reforms in various fields and has gained a prominent position in the national order of priorities. The objectives of this multiyear plan include the recruitment of outstanding young staff,

incentivizing teaching quality, increasing the resources for competitive research, and establishing Centers of Excellence.

In addition, it was decided that the PBC will work to improve access to the higher education system for the Haredi (ultra-Orthodox Jewish) population and to ethnic minorities by formulating detailed programs for coping with the unique challenges that those populations face as they enter the system.

- The number of undergraduate students in universities has increased continuously since the establishment of the State of Israel and until the mid-2000s; however, since then, it has consistently declined—from 70,205 students in the mid-2000s to 66,130 for the academic year of 2012/13. We estimate that the number of undergraduate students will remain stable in 2013/14. The number of students for advanced degrees is also expected to remain stable in 2013/2014; it included, in 2012/13, some 39,090 Master degree students and some 10,655 doctoral students.
- Unlike the decline in the number of undergraduate students in universities in recent years, the number of undergraduate students in academic colleges has continuously and rapidly increased; from 51,000 in 2003/04 to 83,370 in 2009/10, an annual average of 8.5%. Since the beginning of the current decade, growth rates have begun to decline in the academic colleges also, with 94,515 undergraduate students in academic colleges in 2012/13, an increase of 3.1% relative to the academic year 2011/12. In colleges funded by the PBC, some 55,785 undergraduate students studied in the academic year 2012/2013, an increase of 3.7% relative to 2011/12. The decline in growth rates was also evident in the 16 non-publicly funded colleges, in which 38,730 undergraduate students<sup>4</sup> studied in 2012/2013, a rise of only 2.3% from 2011/12, as compared with previous years, in which those institutions grew by about 7% annually.
- The number of Master degree students in academic colleges is still lower than in universities; however, this number is consistently rising and, in 2012/13, 11,365 Master students studied in academic colleges, as compared with 10,155 in 2011/12.
- In the academic colleges of education, the number of undergraduate students has grown slightly and reached 22,295 students in 2012/13.

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4 Including students of the Business Administration B.A. Program at the Ruppin Academic Center, which is not funded by the PBC.

The number of Master degree students in these colleges increases significantly each year, and has reached 4,015 in 2012/13, a rise of 17% compared with that of 2011/12.

- In the academic year 2012/13, some 42,760 students attended undergraduate courses in the Open University of Israel, a 3.2% increase relative to 2011/12. The number of Master degree students at the Open University of Israel has also increased relative to 2011/12–3,415 students in 2012/13, as compared to 3,250 in 2011/12.

### Students in Institutions of Higher Education

by institution type and degree, 2012/13

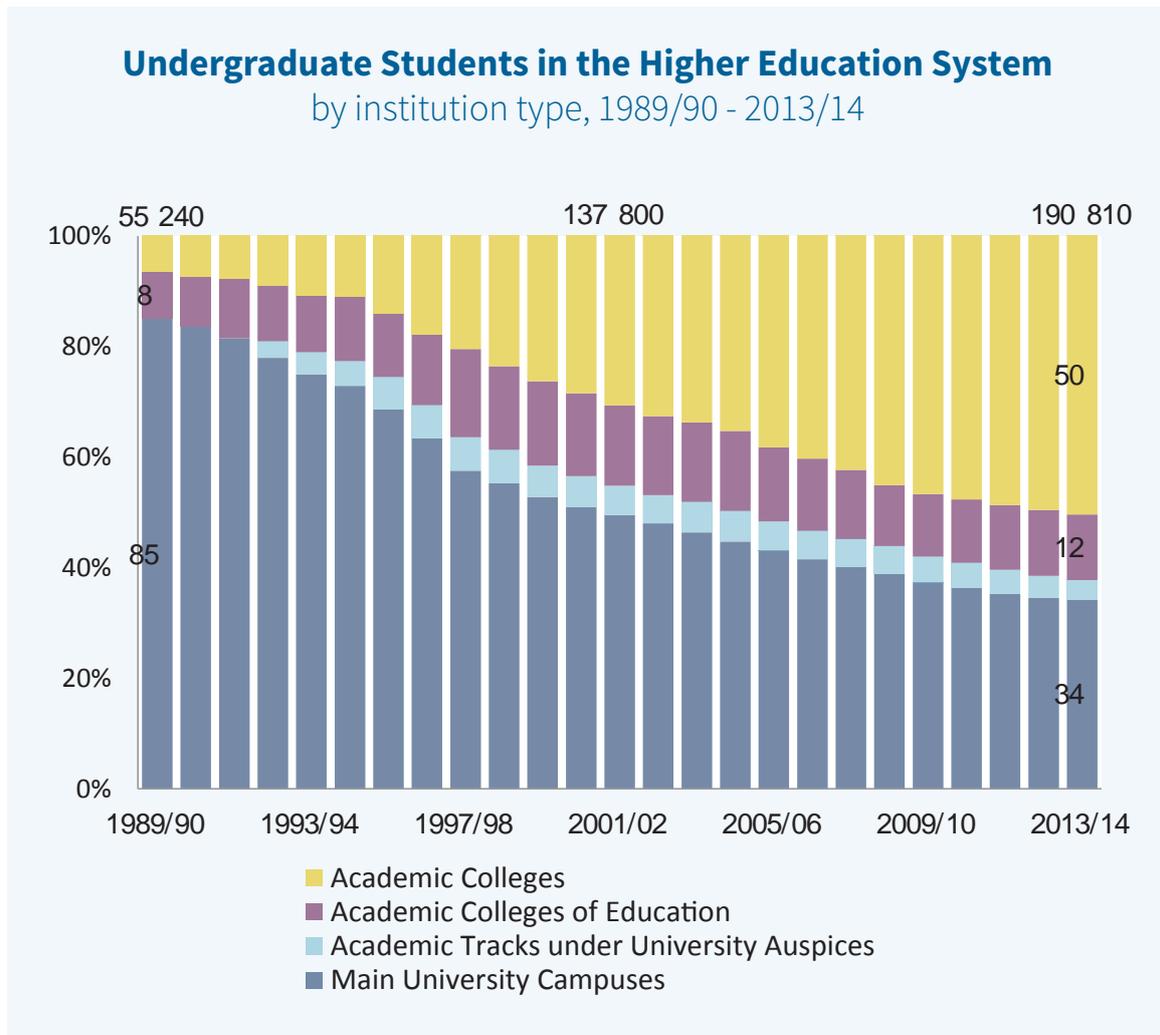
	Bachelor degree	Master degree	Doctoral degree	Total
Universities – main campuses	66,130	39,090	10,655	115,875
Academic colleges Total	102,385	11,365	-	113,750
- Publicly funded by the PBC	55,785	3,050	-	58,835
- Non-publicly funded colleges	38,730	8,315	-	47,045
- Academic tracks under university auspices	7,870	-	-	7,870
Academic colleges of education (Teacher-training colleges)	22,295	4,015	-	26,310
<b>Total</b>	<b>190,810</b>	<b>54,470</b>	<b>10,655</b>	<b>255,935</b>

Comment: The data do not include students at the Open University of Israel and the 1,250 students studying for a diploma in the universities

### Undergraduate studies

- The high demand for undergraduate studies – and the diversion of this demand to academic colleges – prompted substantial changes in the structure of the Israeli higher education system and prepared the infrastructure for the system in its current state. During the past two decades, the number of undergraduate students increased more than threefold, reaching 190,810 in 2012/13. This tremendous growth produced a gradual and consistent rise in the number of students

studying for a bachelor degree in academic colleges; in 2008/09, for the first time, more than 50% of the undergraduate students studied in academic colleges (including programs under university auspices). In parallel, the share of undergraduate students studying in the main university campuses continued to decline, falling to 34.2% of all undergraduate students in 2013/14.



- The 2013/14 academic year is the first year in which the number of undergraduate students in publicly funded academic colleges, including those in colleges under university auspices, is expected to come close to the number of undergraduate students in the universities, namely, 65,000 and 66,000 students, respectively. This fact reflects the changes made in the higher education system in Israel over the past two decades, in terms of the distribution of students throughout the different types of institutes of higher education in Israel, and of the rising numbers of students in publicly and non-

publicly funded academic colleges, relative to the negative growth in the number of university students.

- Since the second half of the 1990s, we are witnessing changes in the inclinations and attitudes of undergraduate students toward studies in the fields of natural sciences and technology, as compared to studies in the fields of the humanities and the social sciences.
- In the academic year 1996/97, about 24% of the undergraduate students had studied in the disciplines of mathematics, computer sciences, natural sciences, and engineering. The proportion of those students has continuously increased until the academic year 2001/02, in which it surpassed 30%, and since then decreased somewhat, to reach 28% in 2012/13.
- The fluctuations characteristic of the hi-tech industry are reflected in the multiyear student data. In the academic year 2001/02, the proportion of students in the fields of mathematics and computer sciences reached 8.3% of the entire undergraduate student population; however, this proportion decreased in the following years, reaching 5.7% of all undergraduate students in the academic year 2012/13.
- The proportion of students of engineering has generally remained stable in recent years, and is estimated at around 18% of the overall number of undergraduate students.
- The proportion of students of business administration increased from 6.7% (6,780 students) in the academic year 1996/97 to 12% (23,230 students) in 2012/13, with most of this increase occurring in non-publically funded colleges.
- The number of students of law increased from about 6,000 students in the academic year 1996/97 to 16,190 in 2012/13; about 80% of those students study in non-publicly funded colleges, as compared to 38% at the start of this period. The percentage of students of law out of the total number of undergraduate students has increased from 6% in the academic year 1996/97, to 8.5% in 2012/13.
- Together with the above-mentioned changes, the percentage of students in the humanities has decreased significantly, from 18.5% in the academic year 1996/97 to only 7.5% in 2012/13.

## Undergraduate Students in the Higher Education System

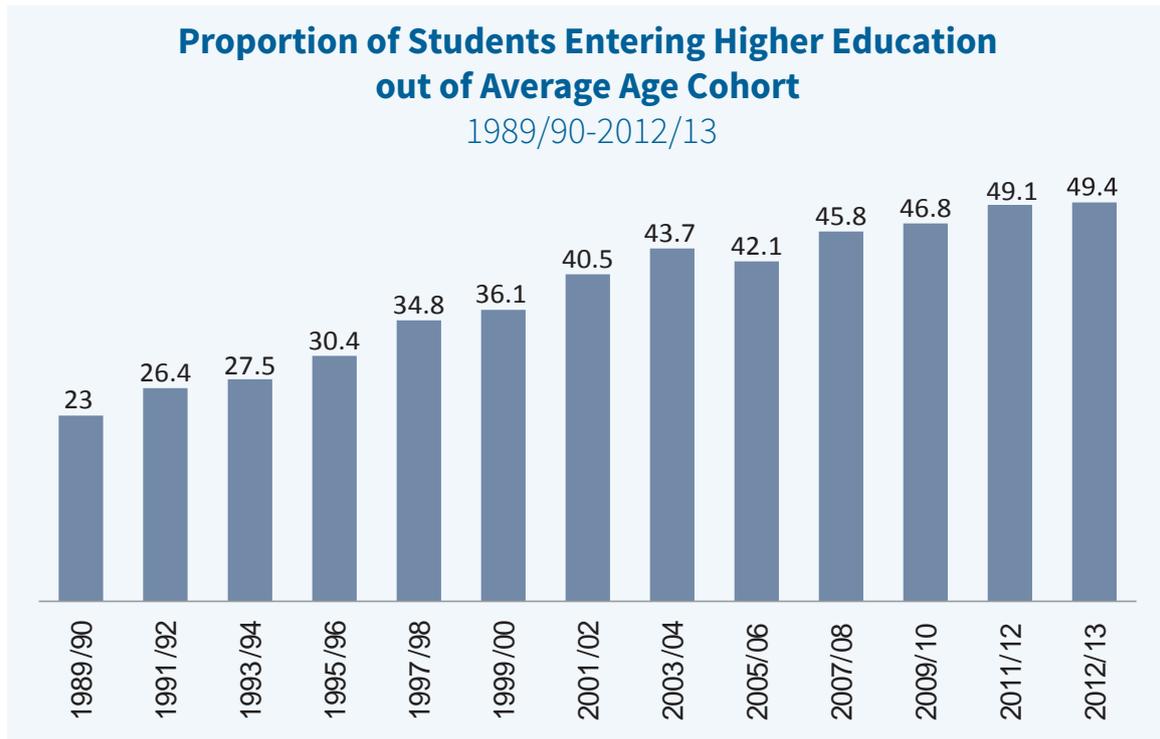
by field of study, selected years

	1996/97	2001/02	2006/07	2012/13
Total – Absolute Numbers	101,230	137,640	163,300	190,810
Total – Percentages	100.0	100.0	100.0	100.0
Humanities	18.5	11.7	9.5	7.5
Education and Teacher Training	16.1	16.5	14.4	13.9
Art and Design Subjects	-	2.3	2.8	2.8
Social Sciences	23.5	19.4	21.9	21.4
Business and Management Studies	6.7	6.0	8.8	12.2
Law	6.0	7.5	9.4	8.5
Medicine	1.1	0.9	0.9	0.9
Para-Medical Professions	3.6	4.1	4.7	5.1
Mathematics, Statistics, and Computer Sciences	7.5	8.3	4.7	5.7
Physical Sciences	1.6	1.8	1.8	1.2
Biological Sciences	2.2	3.1	3.2	2.6
Agriculture	0.6	0.5	0.5	0.6
Engineering and Architecture	12.5	17.9	17.5	17.6

- One common measurement to examine the accessibility to higher education is the percentage of new students out of an average annual cohort of 20–24 year olds, the age at which most students begin to study. At the beginning of the 1990s, this measurement was approximately 23%, and it has increased rather consistently in the years that followed, reflecting the policy of the PBC and CHE of increasing access to higher education. In 2012/13, this measurement was estimated to be 49.4% of the relevant age group, and we estimate that it will continue to increase in 2013/14 and reach close to 50%.

In contrast, the PBC estimates that, in the coming years, the age group that turns to undergraduate studies will be depleted. This estimate is a result of a combination of factors, among which is the decline in the growth rate of the number of 20–24 year olds and the stabilization in

the rate of youngsters eligible for a matriculation ('Bagrut') certificate. The main growth in the number of people of the age group relevant to higher education will be in the Arab and in the Haredi sectors. Because those sectors are underrepresented in academic studies, special efforts are required for their inclusion in institutes of higher education. Thus, a special significant section of the multiyear reform plan for the years 2010/11–2015/16 concerns the inclusion of these two particular groups in the higher education system.

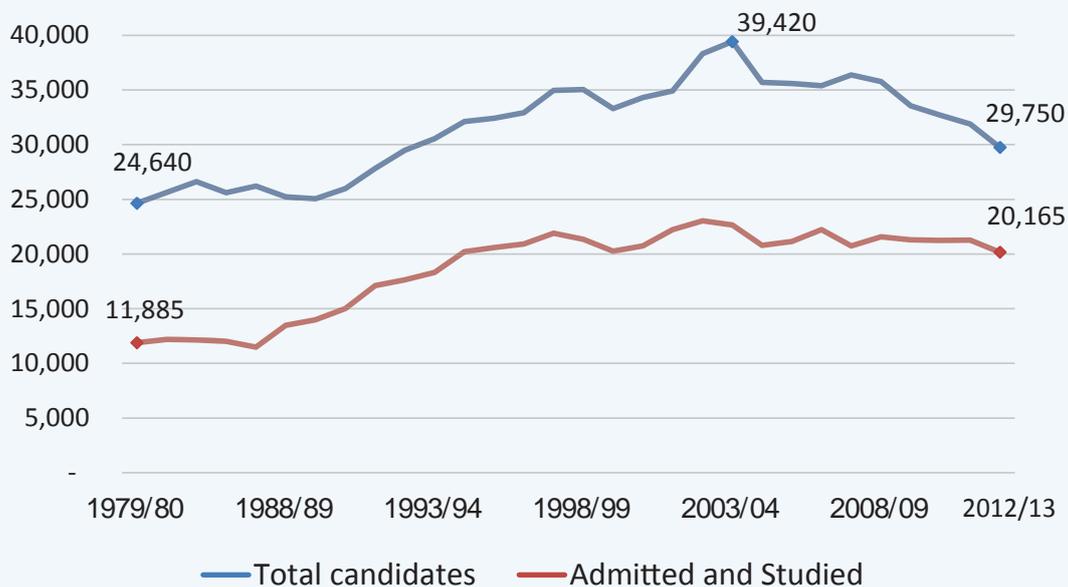


### Applicants for undergraduate studies

- The number of applicants for bachelor degree studies in universities increased steadily until the middle of the 2000s, when it peaked at around 39,400 students. Those numbers have declined in recent years, decreasing to 29,750 applicants in the academic year 2012/13, more than 2,000 fewer applicants than in 2011/12. Similarly, the number of applicants who were accepted to and commenced their studies in institutes of higher education increased steadily until the middle of the 2000s and has stabilized in recent years, reaching 20,165 in 2012/13. The proportion of those applicants ranged from around 61% during the 1990s and 2000s, and increased during the current decade to 68% in the academic year 2012/13.

## Applicants for Bachelor's Degree Studies in Universities

1979/80-2012/13



- Data on undergraduate applicants to academic colleges was obtained for the first time in the academic year 2007/08; since then, their numbers have increased from 38,280 to 45,480 applicants in 2012/13<sup>5</sup>. The percentage of candidates who were accepted and actually commenced their studies was 64%, similar to their percentage in 2007/08. The most highly sought after fields of study in academic colleges are Law, Business Administration, Social Sciences, and Engineering. Law and Business Administration are mostly taught in the non-publicly funded colleges. The distribution of applicants by field of study is obviously different between colleges and universities. For instance, while the share of applicants for Business and Management Studies and for Law was about 5% each in the universities, it was 21% and 14%, respectively, in academic colleges.
- The applicant to student ratio in all fields taught in university was 1.7 in the academic year 2012/13, as compared to about 2.0 during the 2000s. Higher ratios can be seen, for example, in the fields of Architecture

5 The two populations somewhat overlap, with some candidates applying for both universities and colleges. Thus, the numbers of candidates in the two populations should not be summated. In estimation, around 4,420 candidates applied both to universities and to academic colleges in 2012/13.

and Urban Planning (3.7), General Medicine (3.4) and Para-Medical Professions (2.0).<sup>6</sup>

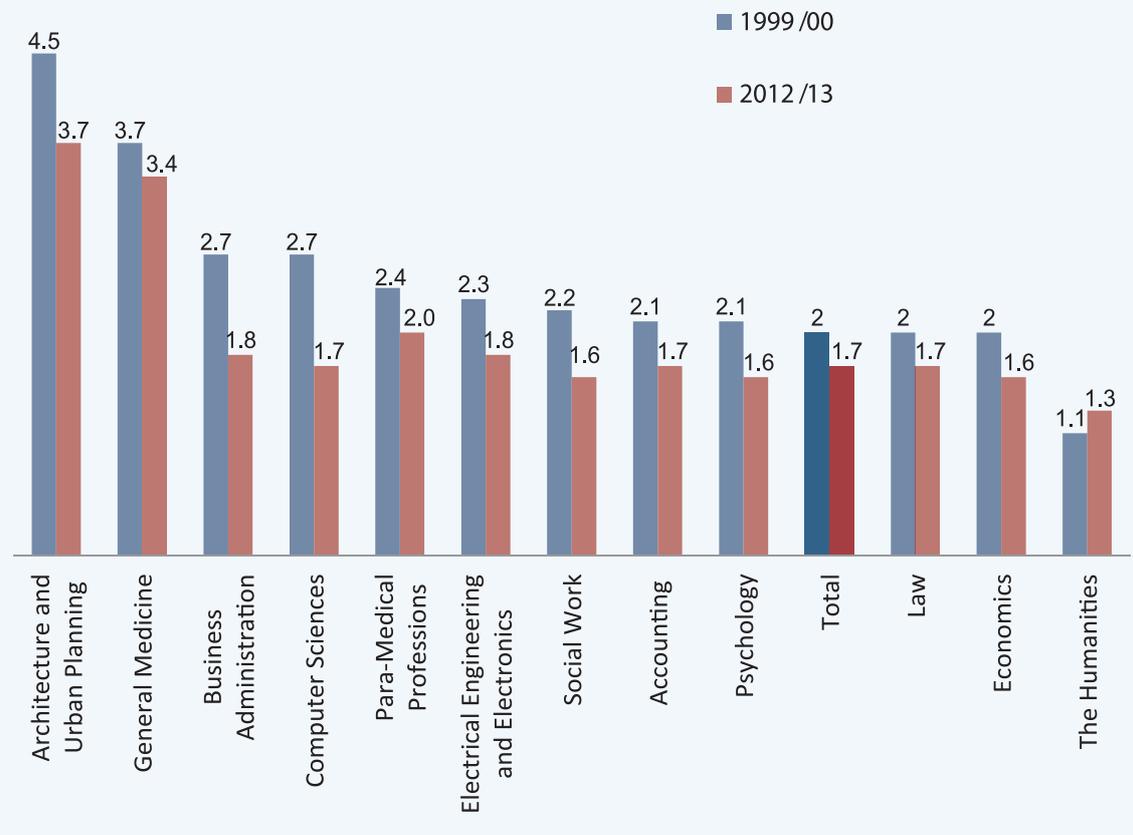
- The number of applicants for Biological Sciences in universities averaged around 1,600 in the past five years. The applicant to student ratio in this field is similar to the average of the other disciplines: 1.6. The number of applicants for the Physical Sciences has increased since the beginning of the 2000s, peaking at 1,130 applicants in 2003/04 and followed by a decrease to 770 applicants in 2012/13. The vast majority (75%) of applicants in the Biological and in the Physical Sciences still study at universities.
- The number of applicants for General Medicine was 1,125 in the academic year 1999/2000, and increased to 1,450 in 2012/13. The applicant to student ratio has decreased in recent years, reaching 3.4 in 2012/13.
- A particularly low applicant to student ratio in the Humanities – 1.3 – reflects the low demand for studies in this field. This decrease in demand is also evident in the number of applicants for the Humanities, which decreased from 6,330 in the early 2000s to about 4,200 in 2012/13.
- The number of applicants for Law and for Business Administration studies in universities declined throughout the 2000s as a result of the transition of most of the demand in these fields to the academic colleges—mainly to the non-publicly funded colleges. The number of applicants for the Law studies was about 2,000 in the beginning of the 2000s and gradually declined to 1,330 in 2012/13; in the studies of Business Administration, the number of applicants was about 500 one decade ago, and decreased to 185 in 2012/13.

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<sup>6</sup> Within the applicants for Para-Medicinal Studies are students of Physiotherapy, Occupational Therapy and Optometry, in which the ratio is 2.1; Nursing and Pharmacy, in which the ratio is 1.9; Communication Disorders, in which the ratio is 2.2; and more.

## Ratio between Applicants for Bachelor's Degree Studies in Universities and Those Admitted and Commencing Study

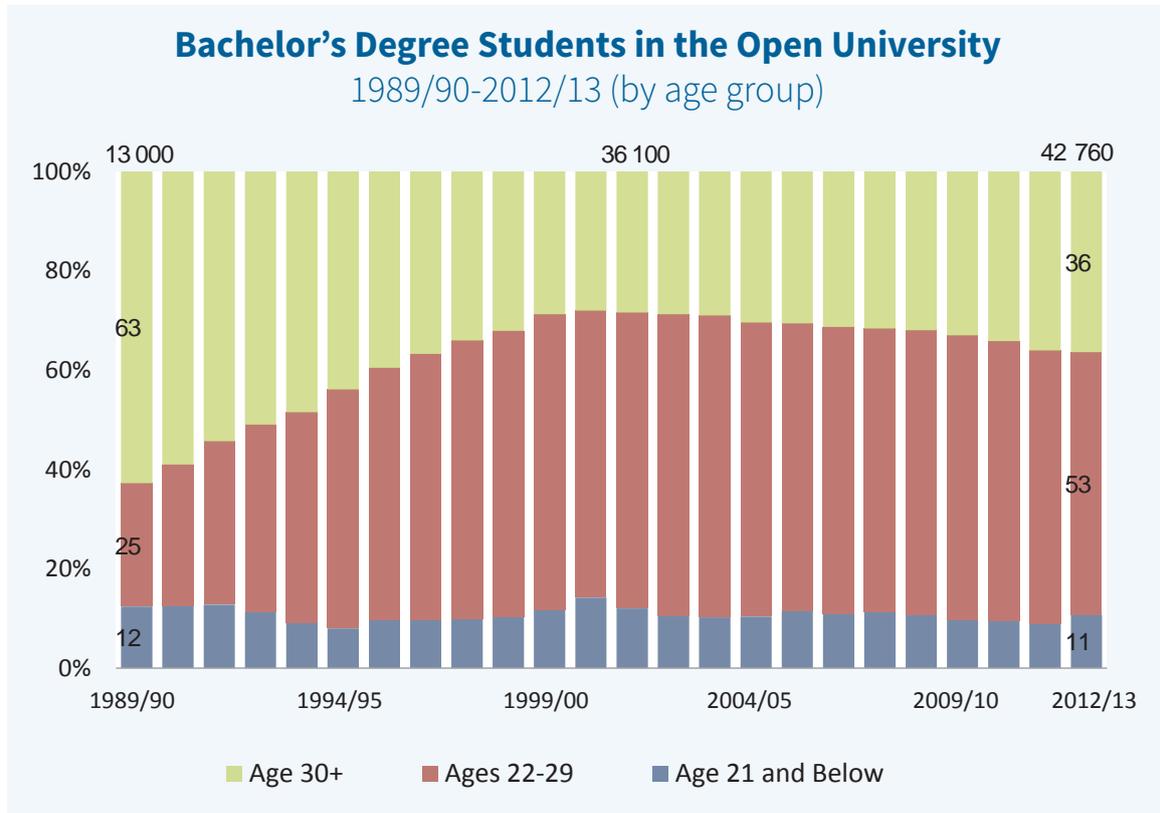
1999/00, 2012/13 (according to a preferred field of study)



## Students at the Open University

- The number of students who registered to undergraduate courses at the Open University increased significantly during the 1990s, from around 13,000 in 1989/90 to around 32,700 in 1999/2000 – an average annual growth of approximately 10%. In the following decade, the annual growth rate decreased considerably to about 3%, and the number of students registering to the Open University in 2009/10 reached 43,050. The number of undergraduate applicants decreased to 42,760 in 2012/13. Studies for a Master degree became available at the Open University at the end of the 1990s, and the number of registered students grew rapidly from a few hundreds at that time, to 3,415 in 2012/13.
- The distribution of ages of undergraduate students at the Open University has changed over the years; while at the beginning of the 1990s, about 63% of students taking undergraduate courses were 30 years old and over, in the 2000s the share of this age group decreased

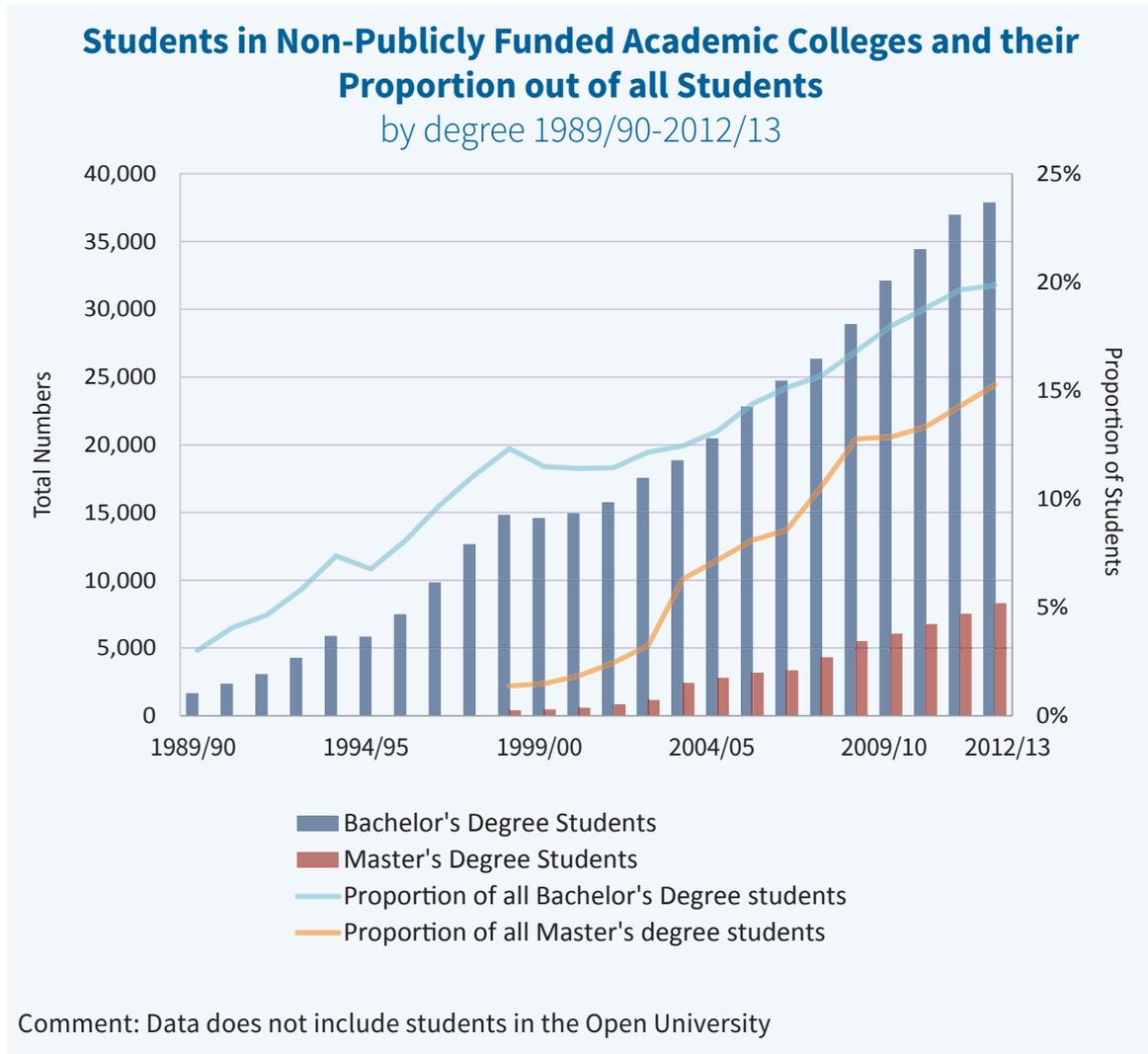
to 28%. However, in recent years, it again began to increase moderately, reaching 36% in 2012/13. The share of young students (22-29 years old) in the Open University reached 53% in 2013, as compared to 25% in 1989/90.



## Non-Publicly Funded Colleges

- During the past 15 years, we have witnessed a rapid opening of new non-publicly funded colleges. In the past decade alone, ten such colleges were opened, five of which opened in the past three years. In the academic year 1989/90, 1,665 undergraduate students attended the College of Management, and, with the addition of other non-publicly funded colleges, the number of students soared to 37,900 in 2012/13. Whereas the first Master degree programs – which were launched in the College of Management in 1998/99 – included 400 students, the number of students in those programs reached 8,315 in 2012/13. The portion of undergraduate students in non-publicly funded colleges among all undergraduate students increased from 3.0% at the beginning of the 1990s to around 20% in 2012/13. In Master degree studies, the percent of students in non-publicly funded colleges in 2012/13 was 15% of all Master degree students.

- Approximately 90% of undergraduate studies in non-publicly funded colleges are in the fields of Social Sciences, Business and Management Studies, and Law. In Master degree studies, more than half of the students attend programs in Business and Management Studies, and an additional 17% study Social Sciences and Law.



### Master Degree Studies

- In 2012/13, there were 57,885 Master degree students, the vast majority of whom studied at universities (including 39,090 students in research universities and 3,415 in the Open University) and the rest studied at academic colleges. Similar to undergraduate studies, Master degree programs also demonstrate a different distribution of study fields between universities and colleges. One of the most popular fields in Master degree studies is Business Administration; in 2012/13,

approximately 11,800 students attended Master degree programs in Business Administration, which constituted 22% of all Master degree students in that year.

- In the beginning of the 1990s, around 2,500 students attended Business Administration programs, all of whom studied in universities. This number increased rapidly until the end of the 1990s and, thereafter, a large portion of the demands for a Master degree in Business Administration studies was diverted to the non-publicly funded colleges. Thus, in 2012/13, around 6,500 of those MBA students studied at universities and around 5,250 of them studied at academic colleges.

### Master Degree Students

by type of institution and by field of study, 2012/13

Field of study	Total	Universities	Funded Colleges	Non-Funded Colleges	Academic Colleges of Education
Total – Absolute Numbers	54,470	39,090	3,050	8,315	4,015
Total - Percentages	100.0	100.0	100.0	100.0	100.0
Humanities	12.3	15.0	4.6	8.2	-
Education and Teacher Training	17.0	9.1	8.6	17.2	100.0
Art and Design Subjects	0.7	-	12.9	-	-
Social Sciences	16.4	18.6	20.0	12.7	-
Business and Management Studies	21.7	16.8	22.7	54.8	-
Law	4.7	5.7	-	4.0	-
Medicine	5.7	7.9	-	-	-
Para-Medical Professions	5.4	7.0	3.1	1.4	-
Mathematics, Statistics, and Computer Sciences	3.2	3.7	4.3	1.8	-
Physical Sciences	1.8	2.5	-	-	-
Biological Sciences	3.3	4.4	2.2	-	-
Agriculture	1.0	1.5	-	-	-
Engineering and Architecture	6.7	7.7	21.5	-	-

Comment: Data does not include students in the Open University.

## Applicants for a Master Degree

- The number of applicants for a Master degree in universities generally increased until the beginning of the current decade, from 18,000 in 2004/05 to approximately 22,670 in 2010/11. This number somewhat decreased in the last two years, reaching 22,460 students in 2012/13. Similar to recent years, 77% of the applicants in 2012/13 were accepted to Master degree studies, and around 61% of them began studying. The percentage of applicants who were not accepted to Master degree studies was approximately 23%. The applicant to student ratio was 1.6 in recent years, and increased to 1.7 in 2012/13.

### Applicants for a Master Degree in Universities, and the Applicant to Student Ratio

by field of study, 2004/5, 2012/13

Field of study	2004/5		2012/13	
	Number of Applicants	Applicant to Student ratio	Number of Applicants	Applicant to Student ratio
Total	17,895	1.6	22,465	1.7
Humanities	1,870	1.4	2,785	1.5
Education and Teacher Training	1,755	2.5	2,525	2.2
Social Sciences	4,235	1.8	5,270	1.9
Business and Management	3,375	1.7	4,130	1.7
Law	1,760	1.4	1,715	1.6
Medicine	135	1.2	60	1.1
Para-Medical Professions	840	1.6	1,705	1.7
Mathematics, Statistics, and Computer Science	860	1.9	815	1.7
Physical Sciences	545	1.3	525	1.5
Biological Sciences	1,165	1.5	1,220	1.6
Agriculture	175	1.2	175	1.3
Engineering and Architecture	1,180	1.5	1,540	1.4

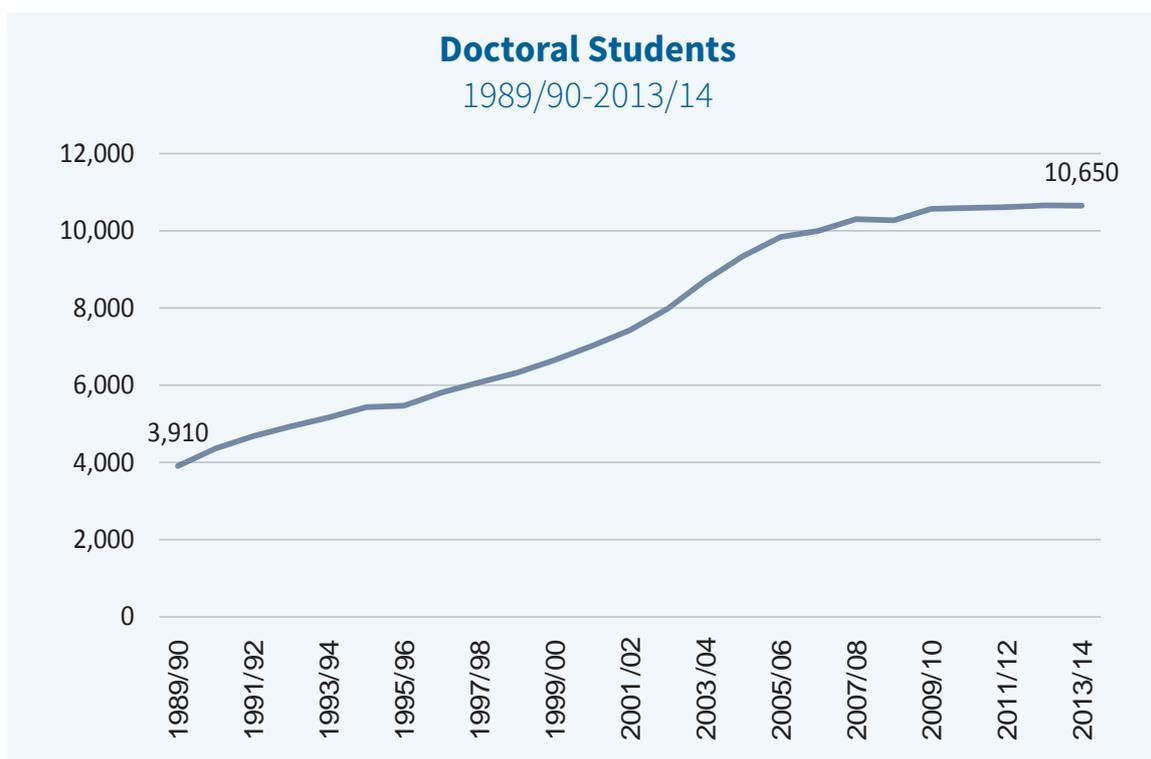
- In contrast to the decline in the demand for undergraduate studies in the fields of The Humanities and Education and Teacher Training in recent years, the number of applicants to Master degree studies in these fields has increased. In addition, the applicant to student ratio in the field of Education and Teacher Training decreased from 2.5 in 2004/5 to 2.2 in 2012/13, presumably due to the need to increase the number of students in this field in universities.

The increase in the numbers of Master degree applicants in universities is also evident in the fields of Social Sciences, Business and Management Studies, and Engineering and Architecture. However, the applicant to student ratio has remained the same in these fields. The number of applicants to Para-Medical professions has more than doubled in recent years, in line with the establishment of new programs, such as art therapy, gerontology, and emergency medicine.

- The number of applicants in the fields of Physics, Biology, and Computer Sciences, as well as the ratio of applicant to student in those fields, has remained generally unchanged.

### **Doctoral Degree Studies**

- The growth in the number of doctoral students at universities has slowed in recent years. In the early 1990s, 3,900 doctoral students attended the universities and their numbers increased very rapidly in the years that followed, reaching 10,300 students in the academic year 2007/8. However, this growth has greatly decreased in the last five years, such that 10,655 doctoral students attended universities in 2012/13, as compared to 10,615 in 2011/12. These numbers are not predicted to change in 2013/14.
- The distribution of doctoral students has gradually changed throughout the years among the seven research universities. In the 1970s and 1980s, most doctoral students attended one of four institutions: the Hebrew University of Jerusalem, the Technion, Tel Aviv University, and the Weizmann Institute of Science. During the 1990s and 2000s, the percentage of students attending those institutions decreased gradually, while the percentage of students in Bar-Ilan University, Haifa University, and Ben-Gurion University of the Negev gradually increased.



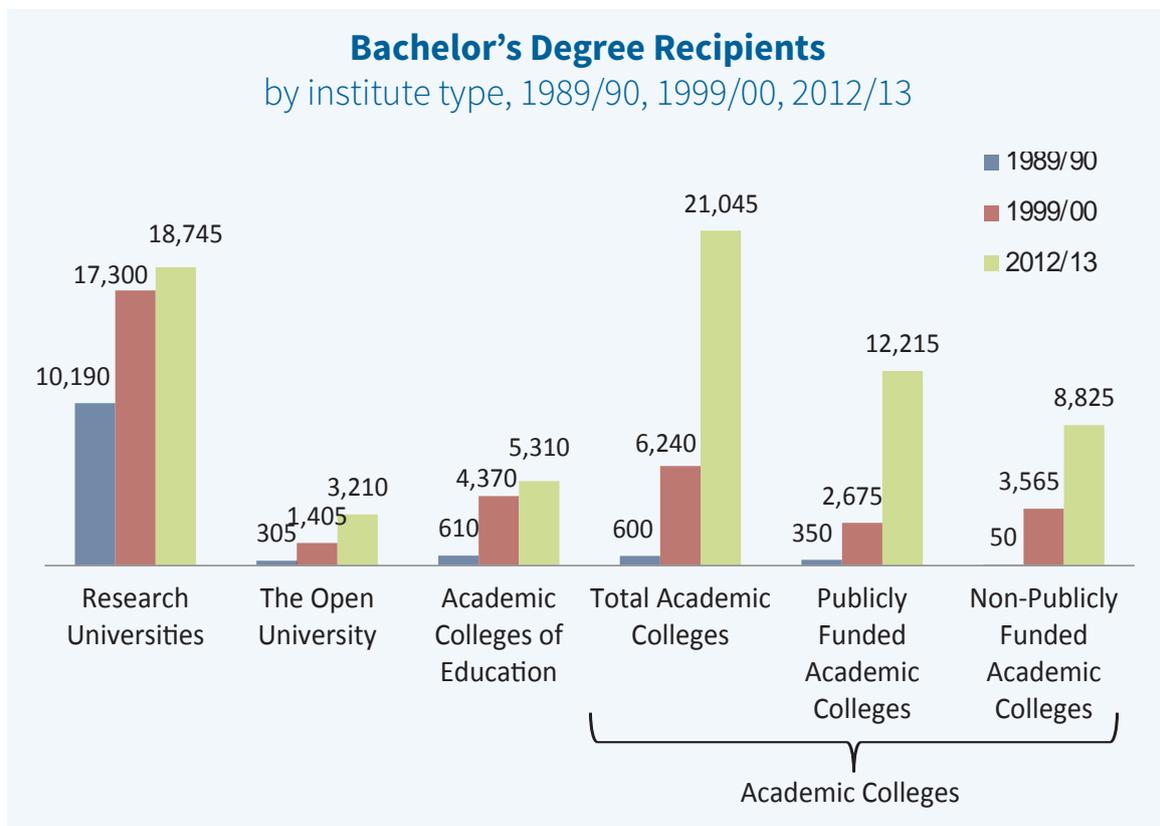
## Degrees Awarded

- In 2012/13, the institutes of higher education awarded 71,545 degrees, as compared with only 15,500 in the early 1990s. The number of bachelor degree graduates was 48,310, the number of Master degree graduates was 20,770, the number of doctoral graduates was 1,540, and the number of students awarded a university diploma was 925.

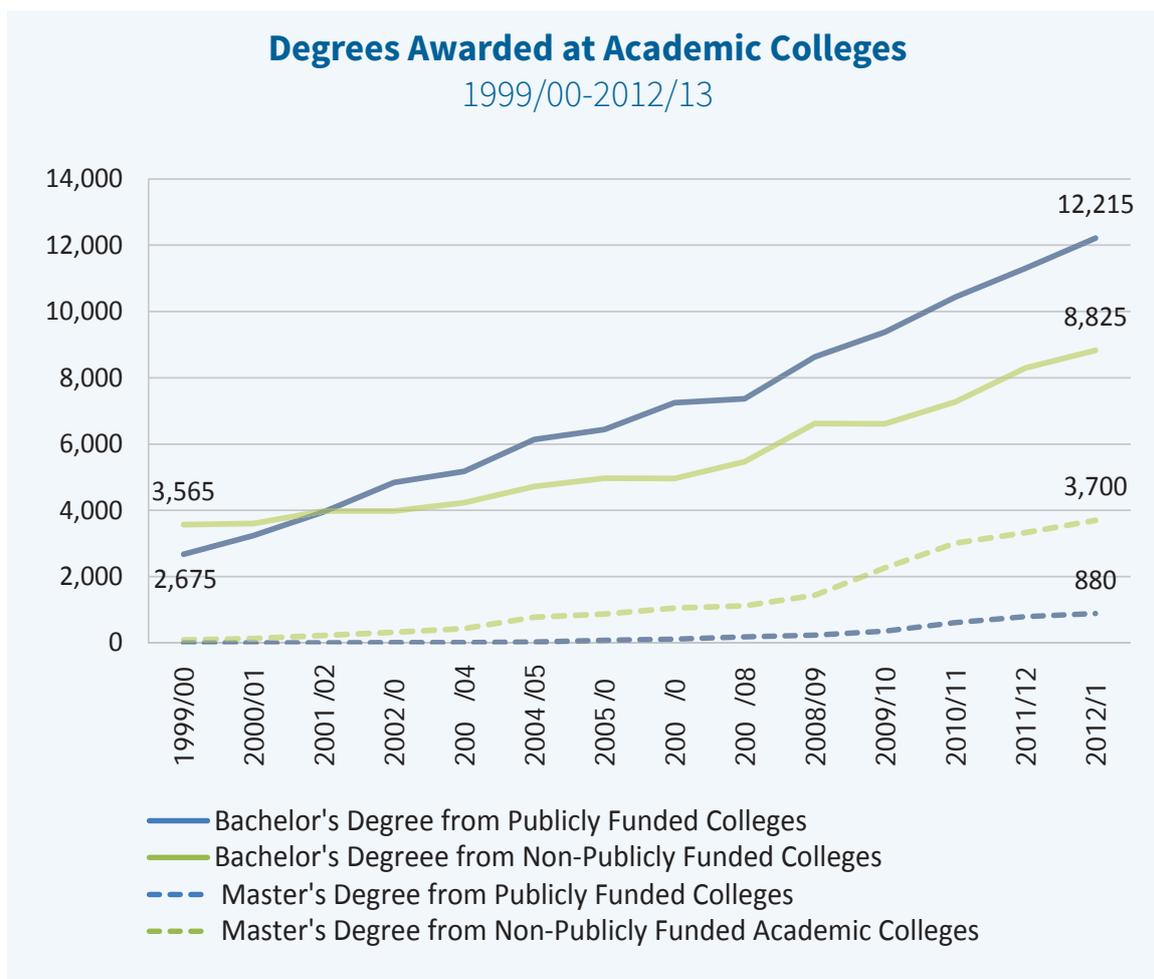
### Degrees Awarded in Institutes of Higher Education by type of institute and degree, 2012/13

	Bachelor Degree	Master Degree	Doctoral Degree	Total
Universities	18,745	14,485	1,540	34,770
The Open University	3,210	600	-	3,810
Academic Colleges - Total	21,045	4,580	-	25,625
- Colleges Funded by the PBC	12,215	880	-	13,095
- Non-publicly funded colleges	8,830	3,700	-	12,530
Academic Colleges of Education	5,310	1,105	-	6,415
<b>Total</b>	<b>48,310</b>	<b>20,770</b>	<b>1,540</b>	<b>70,620</b>

- Similar to the changes in the number of undergraduate students, the number of bachelor degree graduates in the universities has stabilized at around 19,000 per year in the past decade, while the number of bachelor degree graduates in academic colleges has continued to increase. In 2011/12, for the first time, the number of bachelor degree graduates was higher in academic colleges than in the universities, and, by 2012/13, reached 21,045. Some 14,485 students completed their Master degree studies at the universities, most (75%) in non-thesis tracks.
- The number of students awarded a Master degree from universities is still growing, albeit at a slower rate of around 5% per year over the past decade.



- The number of students being awarded a Master degree from academic colleges continues to grow, and, in 2012/13, exceeded 4,500. Most of those students graduated from non-publicly funded colleges, mainly in the fields of Law and Business Administration. In 2012/13, approximately 1,540 students were awarded a Doctoral degree from universities. In the last decade, the number of those students increased by 6% on average each year; however, in the last three years, those numbers have stabilized to some extent.



## Social Aspects of the Higher Education System

- One of the most impressive achievements of the Israeli higher education system in the past decades has been the increase in accessibility to higher education for populations in the outlying areas of Israel and for weaker populations and groups. In 2012/13, approximately 24% of undergraduate students attended institutes of higher education in the north and south districts of Israel (9.7% in the north district, and 14.6% in the south district), as compared to only 9% of students who attended institutes of higher education in the south district in 1989/90. Such a significant change in Israel's higher education map took place in the last two decades and would not have been possible without providing the required budgetary resources to both the southern and northern areas of the country.

- Despite the slower growth rate in the number of higher education students in recent years, the number of students in the northern district of Israel has almost tripled over the past decade, mainly as a result of the expansion of existing programs in academic colleges in the northern areas and the opening of new study programs.
- The percentage of institutions located in the Jerusalem area has been consistently dropping and, in recent years, approximately 13% of undergraduate students attended institutes of higher education in the Jerusalem area, as compared to 23% at the beginning of the 1990s.

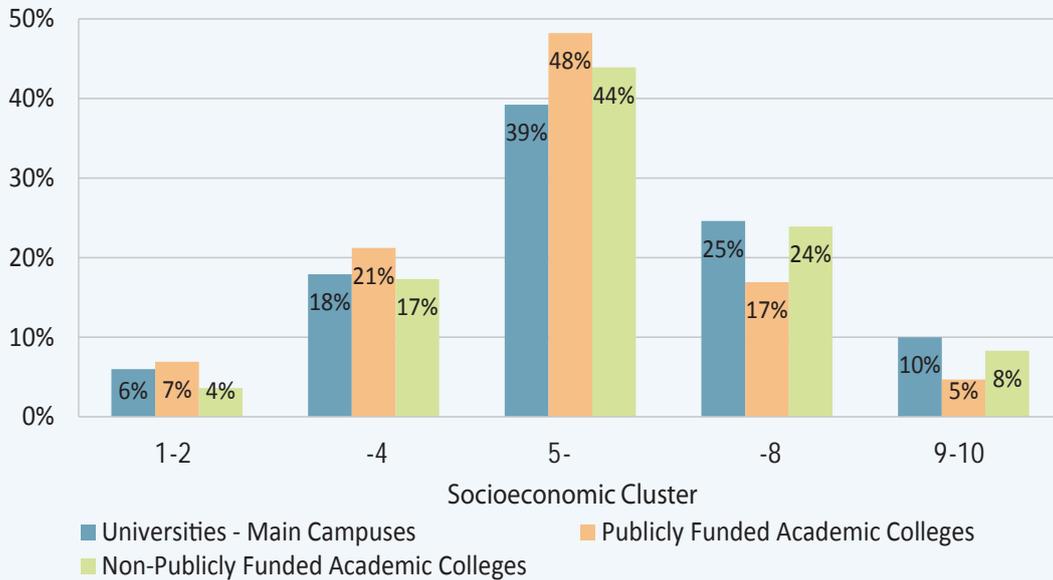
### **Undergraduate Students** by district of institution, selected years

	1989/90	1999/00	2012/13
Total – Absolute Numbers	55,250	126,900	190,810
Total – Percentage	100.0	100.0	100.0
Jerusalem	22.7	15.5	13.3
North	-	5.3	9.7
Haifa	21.7	17.9	13.4
Center	4.1	15.9	17.7
Tel-Aviv	42.8	31.5	31.3
South	8.7	13.9	14.6

- To characterize the distribution of undergraduate students in the different types of institutes today, one can examine the socioeconomic cluster of the place of residence of the undergraduate student according to where he or she studied in the 12th grade. According to a special study performed for us by the Central Bureau of Statistics, approximately 24% of all university undergraduate students in 2012/13 resided in areas of lower socioeconomic clusters (clusters 1–4). Those students comprised 28% of the undergraduate students in colleges funded by the PBC, and 21% of the undergraduate students in non-publicly funded colleges.
- Approximately 35% of undergraduate students in the major university campuses reside in regions of higher socioeconomic clusters (7–10). They comprise 22% of the students at the publicly funded colleges and 32% of the students in non-publicly funded colleges.

## Undergraduates by Institute Type and Socioeconomic Cluster of Student's Place of Residence in 12th Grade

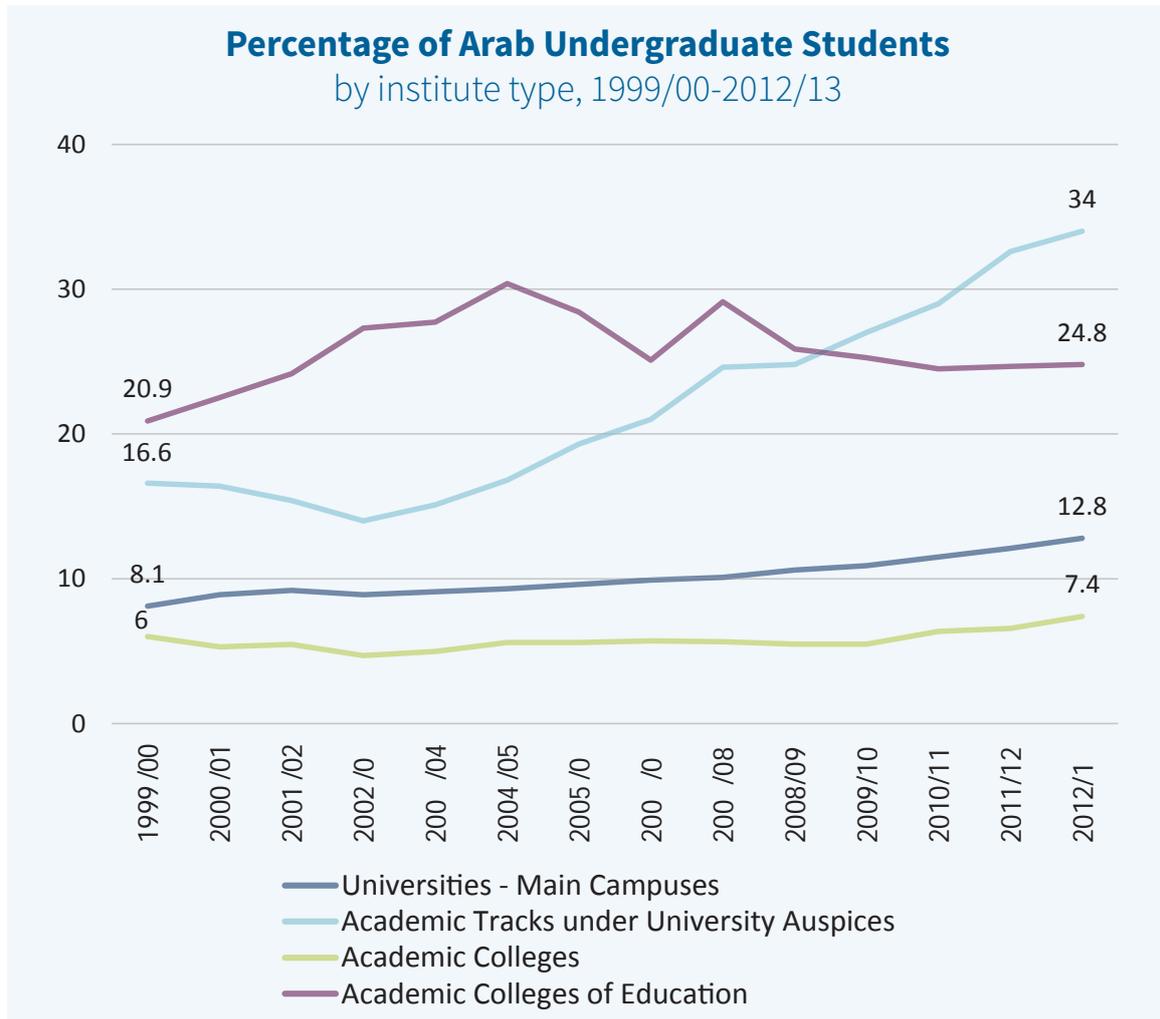
2012/13



### Arab Students

- In 2012/13, some 29,240 Arab students – in all levels of degrees – attended institutes of higher education, and an additional 5,210 Arab students attended a Bachelor or a Master degree studies at the Open University of Israel. Of all Arab students attending universities, academic colleges, and academic colleges of education, 23,605 studied for a bachelor degree, 4,895 studied for a Master degree, 510 studied for a doctoral degree, and 230 studied for a diploma.
- The percentage of Arab students among all undergraduate students has grown significantly since the 1990s, reaching 10% in 1999/2000. This increase in the number and percentage of Arab students has continued in the years that followed, albeit at a slower rate, and, in 2012/13, their percentage was estimated at around 13% of all undergraduate students. This increase in the number of Arab students is due partly to the opening of institutes of higher education in outlying areas, where the Arab population is concentrated.
- In the academic year 2012/13, some 36% of all Arab undergraduate students attended the major university campuses, 23% attended academic colleges of education, 19% attended colleges funded by the

PBC, 11% attended colleges under university auspices, and 11% attended non-publicly funded colleges.



- A significant increase in the participation of Arab women in university studies is evident. Whereas Arab women comprised only 40% of all Arab undergraduate students at universities at the beginning of the 1990s, they comprised 66% in 2012/13, as compared to slightly less than 53% among the Jewish population. This important development is also related, among other reasons, to the studies at colleges under university auspices in outlying areas, which allows Arab women to study close to their homes and without the need to move away from their family and social frameworks.
- Despite the improvement in Arab participation in the higher education system in recent decades, and as part of the perception of higher education being a primary instrument for social mobility and closing gaps, the PBC has seen fit to increase the accessibility of higher

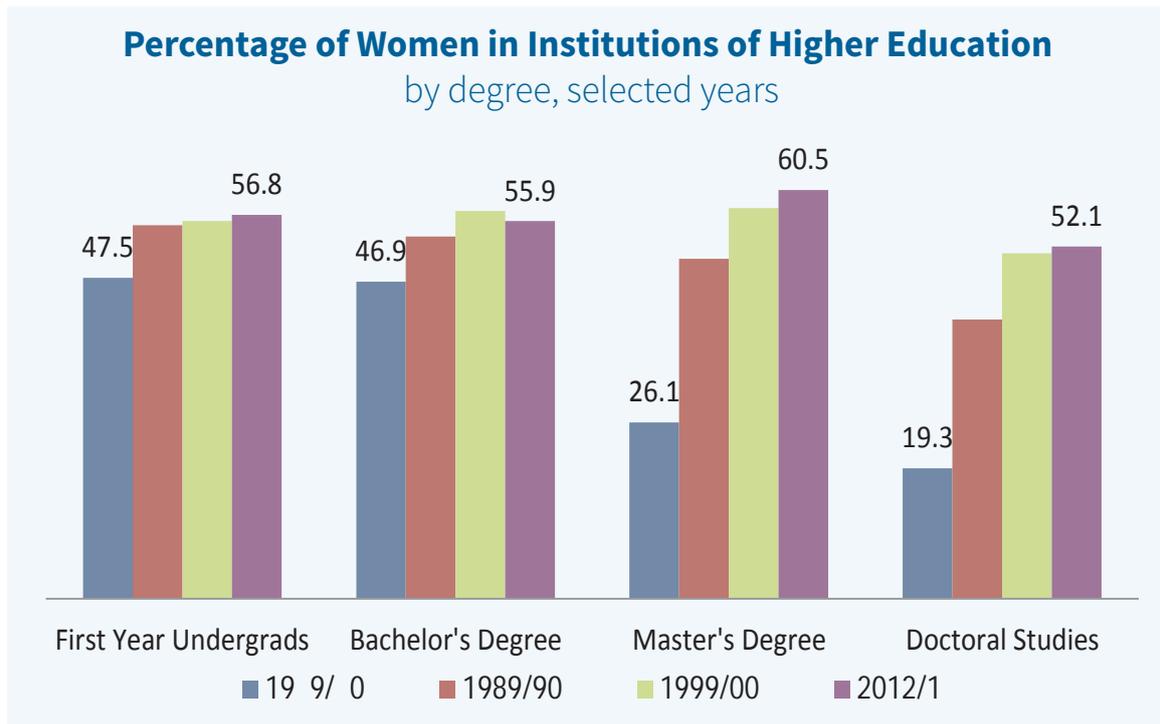
education to the Arab sector even further. Therefore, as part of the multiyear plan for 2010/11–2015/16, a significant budget has been appropriated for that purpose and a comprehensive program has been formulated for tackling the obstacles that still exist for the inclusion of the Arab population in institutes of higher education. Further details on this program are presented in the chapter regarding the main activities of the PBC and CHE in recent years.

- As mentioned above, in 2012/13, some 4,895 Arab students attended Master degree studies in institutes of higher education. These students comprised 9% of all students for Master degrees. At universities, their percentage more than doubled – from 3.6% during the 1990 to 8.2% in 2012/13. This increase, after a long period of stagnation, was due to the increased participation of the Arab population in undergraduate studies in previous decades. In the academic colleges, the percentage of Arab students for a Master degree was 6.4% in 2012/13, as compared with 7.7% in 2011/12, and in the academic colleges of education, the percentage of Arab students for a Master degree was 23.8% in 2012/13, as compared to 21.3% in 2011/12. In 2012/13, Arab students comprised 4.8% of all doctoral students. Despite the slower rate of increase in the number of doctoral students in recent years, the percentage of Arab students among those students is increasing consistently, although their percentage is still low.
- In undergraduate studies in universities, the prominent fields of study in which a high percentage of Arab students is evident are medicine (18% in general medicine and 38% in dentistry) and the para-medical professions (30.2%), mainly pharmacy (41%) and nursing (39%). In the colleges funded by the PBC, the prominent fields are general studies (38%), nursing (34%) and optometry (40%). In non-publicly funded academic colleges, the prominent fields of study are education (30%) and nursing (31%).

## Women

- Following the significant increase in the participation of women in academic studies in the past decades, women comprised 57% of all students in 2012/13. Today, women comprise the majority of students in all degrees; 56% of bachelor degree students, 61% of Master degree students, and 52% of doctoral students.

- The stabilization of the proportion of women undergraduate students results from, among other factors, the continuing growth of colleges teaching engineering and technological professions – in which the proportion of women is lower – alongside the lack of growth in academic colleges of education, in which the proportion of women is the highest. In 2012/13, the percentage of women out of all undergraduate students was approximately 52% at academic colleges and 79% at the academic colleges of education.



- An impressive increase is also evident throughout the years in the participation of women in advanced degree studies. The proportion of women Master students exceeded 50% in 1989/90 and, as mentioned above, reached 61% in 2012/13. The rate of women doctoral students first exceeded 50% at the end of the 1990s and stabilized at around 52% in recent years.
- The overall increase in the number of women participating in academic studies resulted in a change of the distribution of the fields of study across women students. Thus, in the last two decades, an increase was evident in the proportion of women studying in the fields of Business and Management, Law, Medicine, and Engineering and Architecture, and a decrease was evident in the fields of the Humanities – namely, from approximately 70% in 1999/2000 to approximately 62% in 2012/13 – in line with the general decline in the number of students in those fields.

## The Percentage of Women Undergraduate Students in Institutes of Higher Education

by field of study, selected years

	1989/90	1999/00	2009/10	2012/13
Total	54%	57%	55%	56%
Humanities	71%	69%	61%	62%
Education and Teacher Training	88%	84%	79%	81%
Social Sciences	49%	66%	66%	67%
Business and Management Sciences	32%	43%	47%	51%
Law	43%	49%	49%	49%
Medicine	44%	50%	55%	54%
Para-Medical Professions	85%	81%	83%	82%
Mathematics, Statistics and Computer Sciences	33%	34%	29%	29%
Physical Sciences	40%	36%	36%	37%
Biological Sciences	69%	65%	64%	63%
Agriculture	44%	55%	60%	53%
Engineering and Architecture	16%	22%	28%	27%

- The proportion of women in doctoral studies has also increased in most fields of study, but here too, the largest increase was evident during the 1990s. The percentage of women studying Law, for example, increased from 27% in 1989/90 to 49% in 2012/13, and in Engineering and Architecture, the percentage of women increased in this period from 17% to 30%.

### Academic Staff

- The number of senior academic positions in the universities has increased by 6.7% since 2008/9, reaching 4,585 positions in 2012/13. This increase occurred after a decade in which the number of senior academic positions in universities steadily declined.
- The total number of positions and Full Time Equivalent (FTE) positions of junior academic staff, external teachers, and teaching fellows remained

almost unchanged between 2011/12 and 2012/13, with 3,510 positions and FTE positions. Following the implementation of wage agreements with the junior academic staff in universities, the number of teaching fellows continued to increase and reached 770 positions in 2012/13 – a 15% increase relative to the previous year. In contrast, the number of FTE positions of external teachers decreased by 13.4% relative to 2011/12, dwindling to 595 FTE positions in 2012/13.

- The number of senior academic positions in funded colleges continues to grow as it has throughout the last decade. The number of FTE positions has doubled since 2001/2, increasing from 960 positions then to 1,965 positions in 2012/13. Relative to the previous year, the number of senior academic positions increased by 7.5%, whereas the number of FTE positions of external teachers was almost unchanged relative to 2011/12, reaching 1,540 FTE positions in 2012/13.
- The large growth in the number of university students during the past decades, on the one hand, and the smaller growth in the number of senior staff members, on the other hand, has significantly increased the ratio between students and senior staff members. This ratio has increased gradually since the early years of the 1990s, growing from approximately 16 students per staff member to 24 students per staff member at the beginning of the current decade. One goal of the 2011–2016 multiyear program for the higher education system is to improve (i.e., decrease) this ratio in both the universities and in the academic colleges. In universities, this ratio has indeed decreased in the academic year 2012/13, going down to 23.2 students per senior staff member.

## Alumni Survey

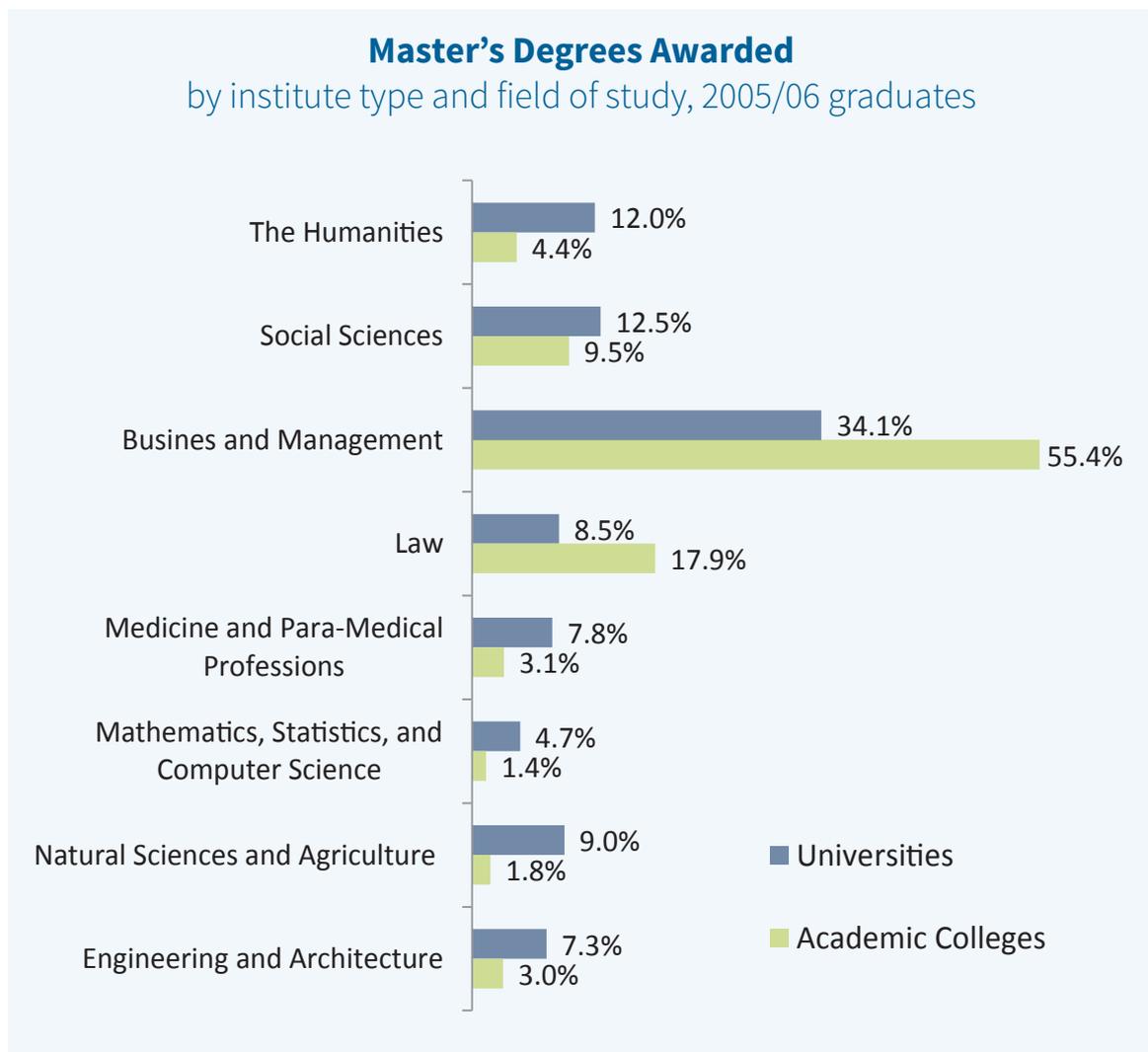
In recent years, the PBC has decided to order a long-term series of graduate surveys, to be performed by the CBS. In this series, the CBS is to visit graduates twice: two years after graduation, and again five years after graduation.

These surveys examine different aspects of the graduates' professional and academic development shortly after graduation, and again a few years later. In 2011, such a survey was held among university and academic college graduates who completed their undergraduate studies in the academic year 2005/6. This survey comprised a sample of 6,080 members (representing the approximately 30,300 graduates in 2005/6) and constituted a follow-up

on the same population that had been sampled in 2007/8, two years after graduation.

**Survey Results:**

- Of all university graduates, 55% had continued their academic studies, as compared to 32% of academic college graduates. The field of study that was most desired by graduates who continued their studies and completed a Master degree was Business and Management, in which 34% of university graduates and 55% of academic college graduates completed their Master degree. A high correlation was found between the field of study for a bachelor degree and the field of study for a Master degree in the following fields: Business and Management, Natural Sciences and Agriculture, Law, Medicine, and the Para-Medical professions. Approximately a quarter of the graduates in those fields continued their advanced studies in the same field as their first degree.



- Women comprised 52% of all graduates who continued their studies toward a Master degree (– 55% in universities, and 46% in academic colleges). The difference between the proportion of women in universities and colleges stems from the difference in the fields that are most commonly studied in each of those types of institutes. The more common fields of study in academic colleges are Business and Management and Engineering, in which the proportion of women is lower, whereas the more common fields of study in universities include the Humanities, Para-Medical professions, Natural Sciences and Agriculture, in which the proportion of women is higher.
- Satisfaction with bachelor degree studies was higher than satisfaction with Master degree studies in both the universities and the academic colleges, and in both Social Sciences and the Humanities and in the Natural Sciences and Engineering. Among both bachelor degree and Master degree students, the degree of satisfaction was higher in non-publicly funded colleges than in publicly funded colleges and universities.
- Satisfaction with the quality of teaching and with the teaching environment in general was highest among students who continued towards a Master degree in the Humanities – with a satisfaction rate of 84%. In three out of the five categories that were examined, the satisfaction of graduate Law students was the highest of all fields of study (more than 80% of the respondents were satisfied with the level of the courses, with the quality of teaching, and with the library services). Satisfaction with the Master degree studies in the Social Sciences was the lowest in most categories (about 70% of the respondents, on average, were satisfied in four of the five categories, as compared with higher rates in other fields of study).
- The overall rate of graduates who were employed was higher in academic college graduates than in university graduates: 91% versus 86%, respectively. The employment rate was higher in the academic colleges than in the universities also with respect to the field of study that students graduated from prior to seeking work in the job market. For example, 92% of respondents who graduated from academic colleges in the field of Business and Management Sciences were employed, as compared with 85% of university graduates in the same field of study. Similarly, in the field of Engineering, 91% of the respondents who

graduated from academic colleges were employed, as compared with 87% of university graduates. Regardless of the institution, the highest employment rates were found among Law graduates (92%) and among graduates of Medicine and the Para-Medical professions (91%), whereas the lowest employment rates were found among graduates in the field of Natural Sciences (83%) because, among other reasons, those graduates tended to continue on to advanced studies.

- Approximately half of the employed graduates reported a high correspondence between the field of their latest degree studies and the nature of their job. The highest correspondence was in the fields of Medicine and the Para-Medical professions (76%), whereas the lowest correspondence was in the fields of the Humanities and Social Sciences (approximately 35%).

## Student Survey

In 2012, another survey was held by the Central Bureau of Statistics that related to students who began their undergraduate studies, in universities or in academic colleges, in 2010/11. The survey examined the reasons for choosing a field of study and an institution, the degree of satisfaction with the studies and with the teaching environment, the funding sources for the studies, and more.

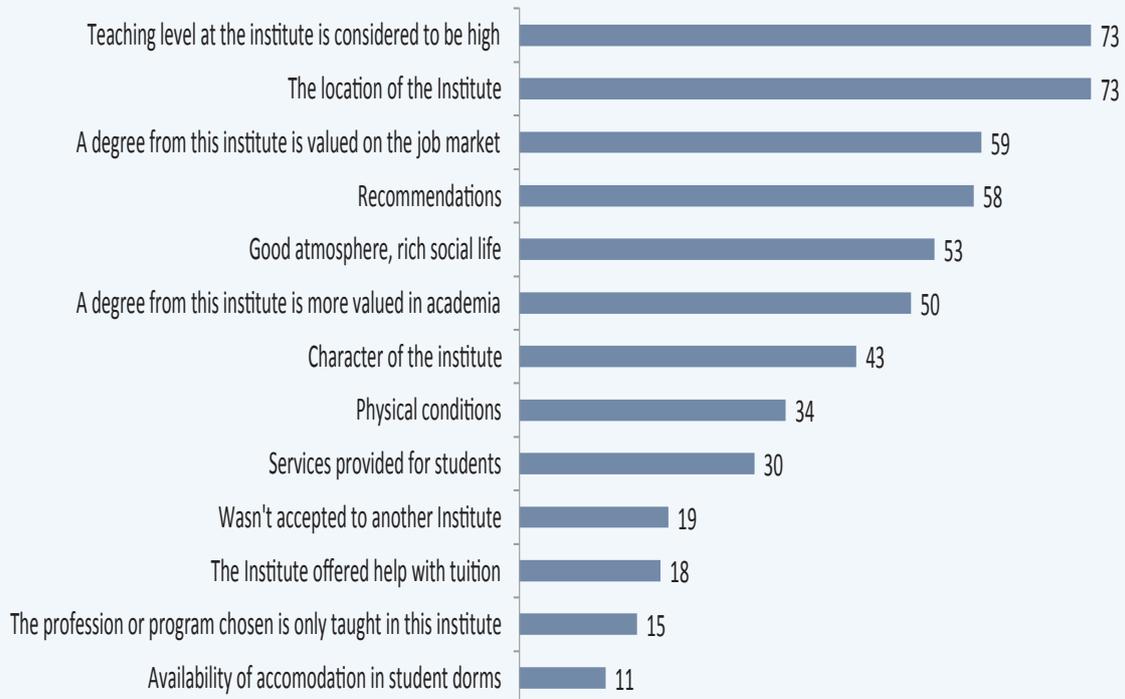
The number of students who began studying in 2010/11 was approximately 49,700, of whom 23,050 studied in universities and 26,650 studied in academic colleges. The sample included 9,300 first-year students, of whom approximately 85% answered the questionnaire.

### Survey Results:

- The main reasons for choosing a specific institute were the level of teaching at the institution and its location (73%), the value of the degree on the job market, and recommendations of the institution (approximately 60%). The main reasons for choosing a specific field of study were whether the field is interesting and fits the student's skills (91%) and whether the studies will enable the student to pursue a career and gain a profession (87%); 80% of the respondents chose their field of study with the purpose of gaining a general education.
- The main sources that were used for gathering information about which field to study in are family and friends (75%) and the Internet (60%), both

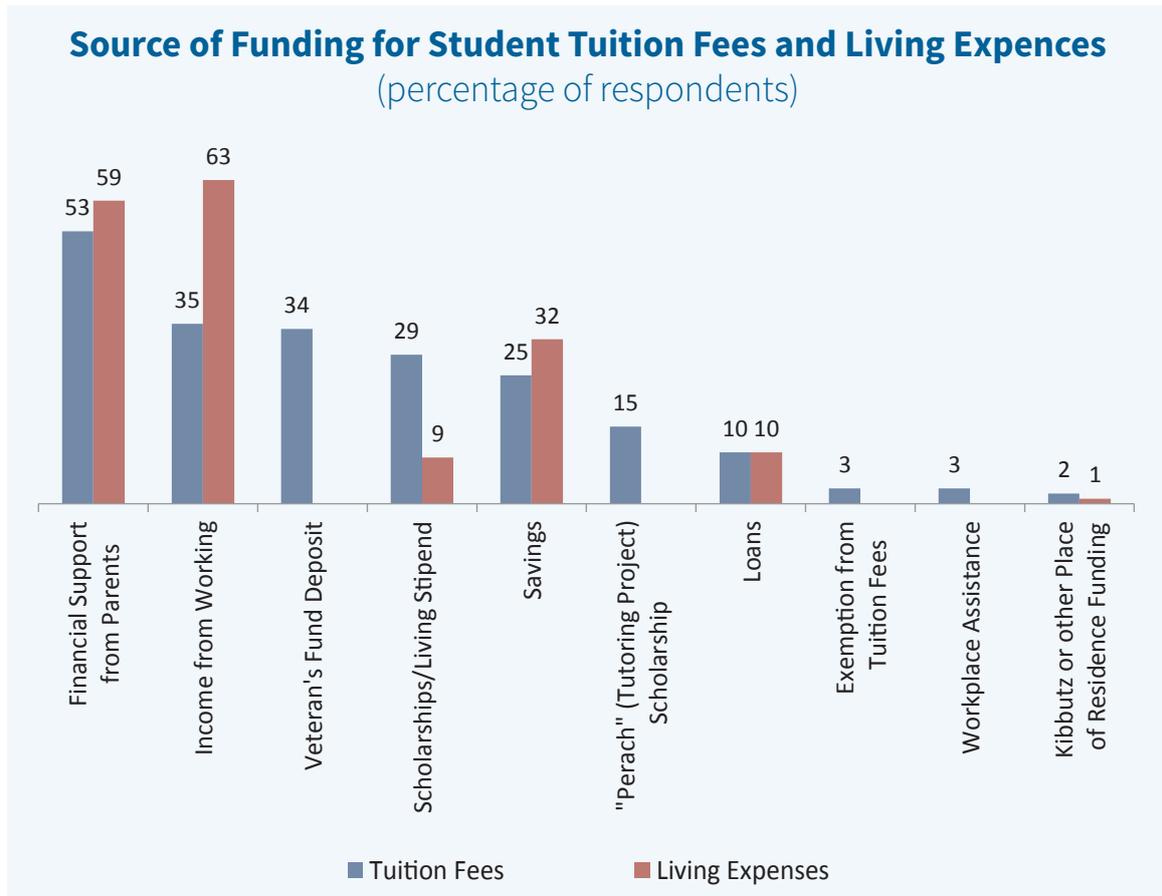
of which are also the main sources used for choosing an institute (family and friends: 47%; the Internet: 22%).

### Reasons for Choosing an Institute of Higher Education (percentage of respondents who replied 'Yes')



- Approximately 60% of the students needed to undertake the Psychometric Entrance Test in order to be admitted; approximately half of the students needed to pass a personal interview; and only 20% of the students needed to pass another professional test.
- Most students – 92% – studied a full curriculum. The students who studied a partial curriculum chose to do so because of the need to combine work with studies.
- A high degree of satisfaction was reported in the following categories: level of the courses (80%) and attitude of the tutor toward students (80%). A lower degree of satisfaction with the manner by which grades are determined (68%) and with the curriculum (68%) was reported. In addition, 82% of the students were satisfied with the physical conditions in the institute and with its library services (83%) and 81% of the students reported that they would recommend the institute to friends.

- The general degree of satisfaction with teaching was higher among students in academic colleges than in university students, especially with respect to the teaching level of the lecturers, their attitude toward students, the method for determining grades, and the curriculum. The overall degree of satisfaction with the teaching environment was also higher among students in academic colleges than in university students. In contrast, the degree of satisfaction was higher among university students than among students in academic colleges with respect to library services and to the functioning of the students' union. A higher percentage of the university students – approximately 82%, as compared with 79% of the academic college students – reported that they would recommend the institute to friends.
- With respect to the degree of satisfaction by field of study – and similar to the findings of the 2011 graduate survey – the highest degree of general satisfaction was reported for Law studies (86%). Satisfaction with the teaching level of lecturers and with the curriculum was also highest in Law studies (85% and 81%, respectively). In contrast, the lowest degree of general satisfaction was in Engineering and Architecture studies, particularly with respect to the teaching level of lecturers (60%) and to their attitude towards students (70%). The Social Sciences showed the lowest degree of satisfaction with respect to the level of courses (77%) and curriculum (62%).
- Approximately 80% of the students reported that the studies improved their general and professional knowledge, but only 40% reported improvements in their command of English, creativity, research skills, and organizational and management skills. Approximately 70% of the students reported that the studies improved their critical thinking, their learning skills, and their verbal and written expression skills.



## Education Indicators of Training Scientific-Technological Personnel in Israel

- In the first decade of the 21st century, about 39% of all matriculation ('Bagrut') certificate qualifiers (52%–57% of all 12th grade students) were tested in scientific-technological (S&T) subjects at an advanced level. This combination of science and technology studies, which includes an advanced level of mathematics and of at least one other S&T subject, gives pupils an advantage in scientific knowledge that increases their chances of admission to higher education in fields of S&T.
- Approximately 63% of 'Bagrut' certificate recipients were admitted to undergraduate studies within eight years of matriculation, about a third of whom to S&T fields. In 2001/2, 82% of the recipients of an S&T-enhanced 'Bagrut' certificate were admitted to academic studies.
- The rate of 'Bagrut' qualifiers who were admitted to universities decreased in the years 1999–2002, from 40% to 33%, whereas the rate of those who were admitted to academic colleges increased during these years, from 21% to 26%.

Of the approximately 55% of S&T-enhanced 'Bagrut' recipients who were admitted to universities in 2001/2, more than half studied in S&T-related fields.

The rate of S&T-enhanced 'Bagrut' recipients attending academic colleges, unlike those attending universities, was lower and similar to that of normal 'Bagrut' recipients, namely, 24%. It should be considered, however, that subjects such as Mathematics, Physical Sciences, and Agriculture are studied only in universities, whereas Computer Sciences and Engineering are studied also in academic colleges.

- In 2009/10, some 62,700 students, who comprised about 30% of all university and college students, studied S&T subjects.<sup>7</sup>

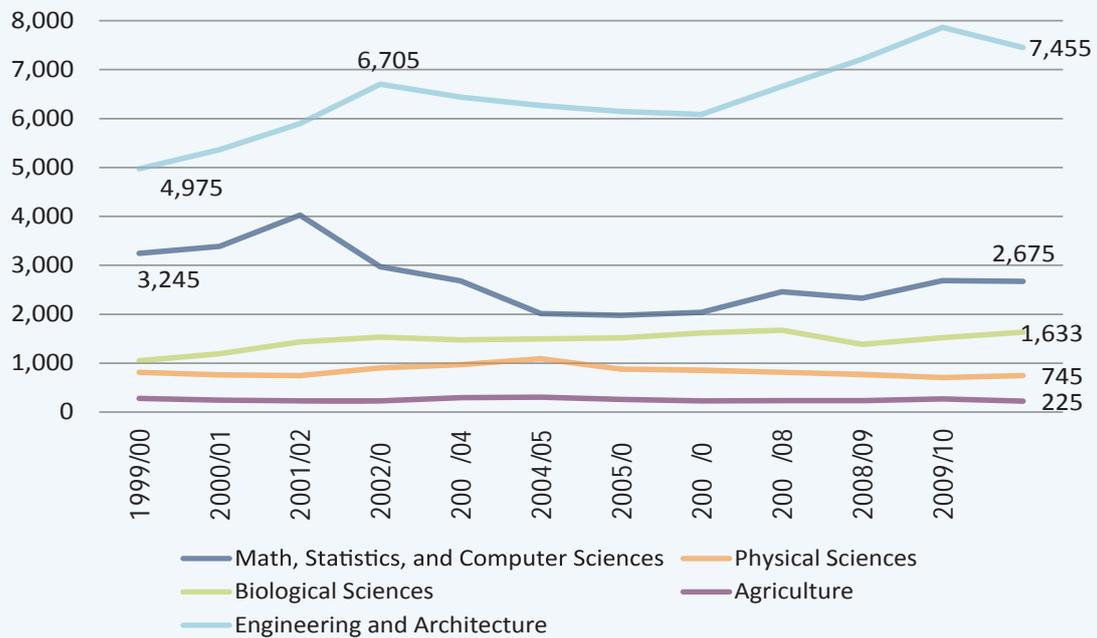
In the past decade, the number of new undergraduate students in S&T fields has increased by 1.7% on average per year, namely, from 10,300 students in 1999/2000 to 12,700 students in 2009/10. This rate is significantly lower than in other fields, in which the increase was 3% per year. One of the underlying reasons is an increase in academic college students who study in non-S&T fields, which has affected the overall growth. Similarly, the annual growth rate of Master degree students studying in S&T fields was lower than that of Master degree students studying in other fields (namely, 2.7% versus 5.2%, respectively). However, in doctoral studies, the growth rate was higher in S&T fields than in non-S&T fields (2.4% versus 2.0%, respectively).

- The fields of Mathematics, Statistics, and Computer Sciences exhibited a sharp decrease in the number of students, namely, from 4,000 students in 2000/01 to 2,000 students in 2004/05. The number of students in those fields has increased since then, but it is still relatively low.

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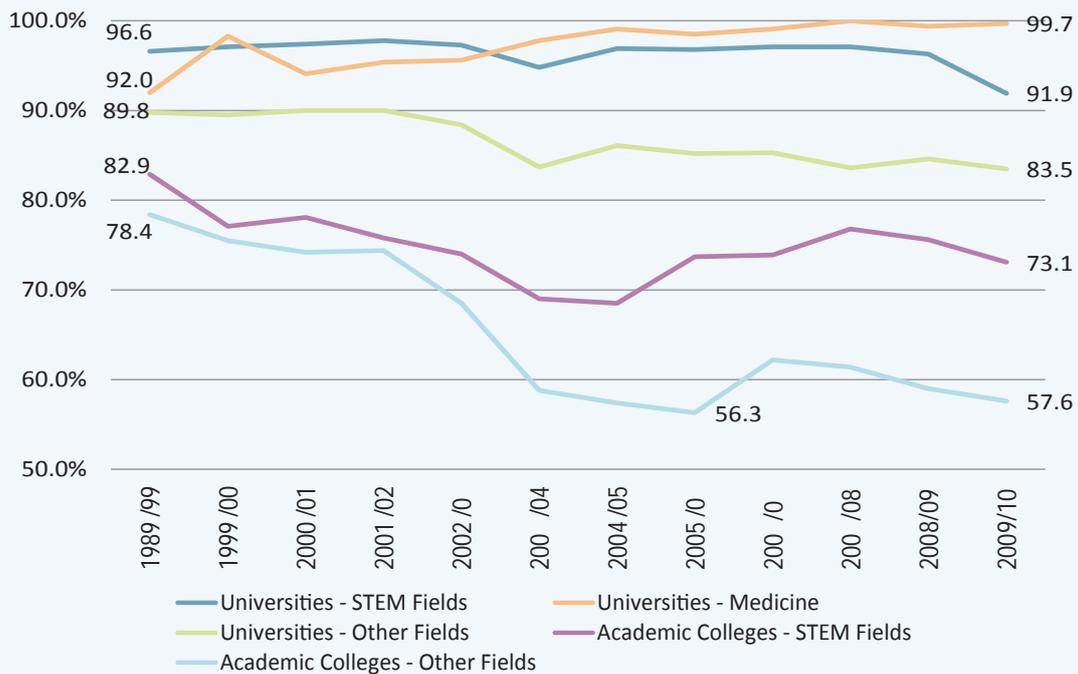
<sup>7</sup> Science and technology in higher education include the fields of Mathematics, Statistics, Computer Sciences, Biological Sciences, Physical Sciences, Agriculture, and Engineering and Architecture.

### 1st Year Undergraduates in STEM Fields by field of study, 1989/99-2009/10



- The rate of new undergraduate students who have taken the Psychometric Entrance Test in universities in the fields of S&T is very high (91.9% in 2009/10). In academic colleges, however, this rate has reached 73.1% after a sharp decline in the past decade.

### Psychometric Entrance Test (PET) Examinees by institute type and field of study, 1989/99-2009/10



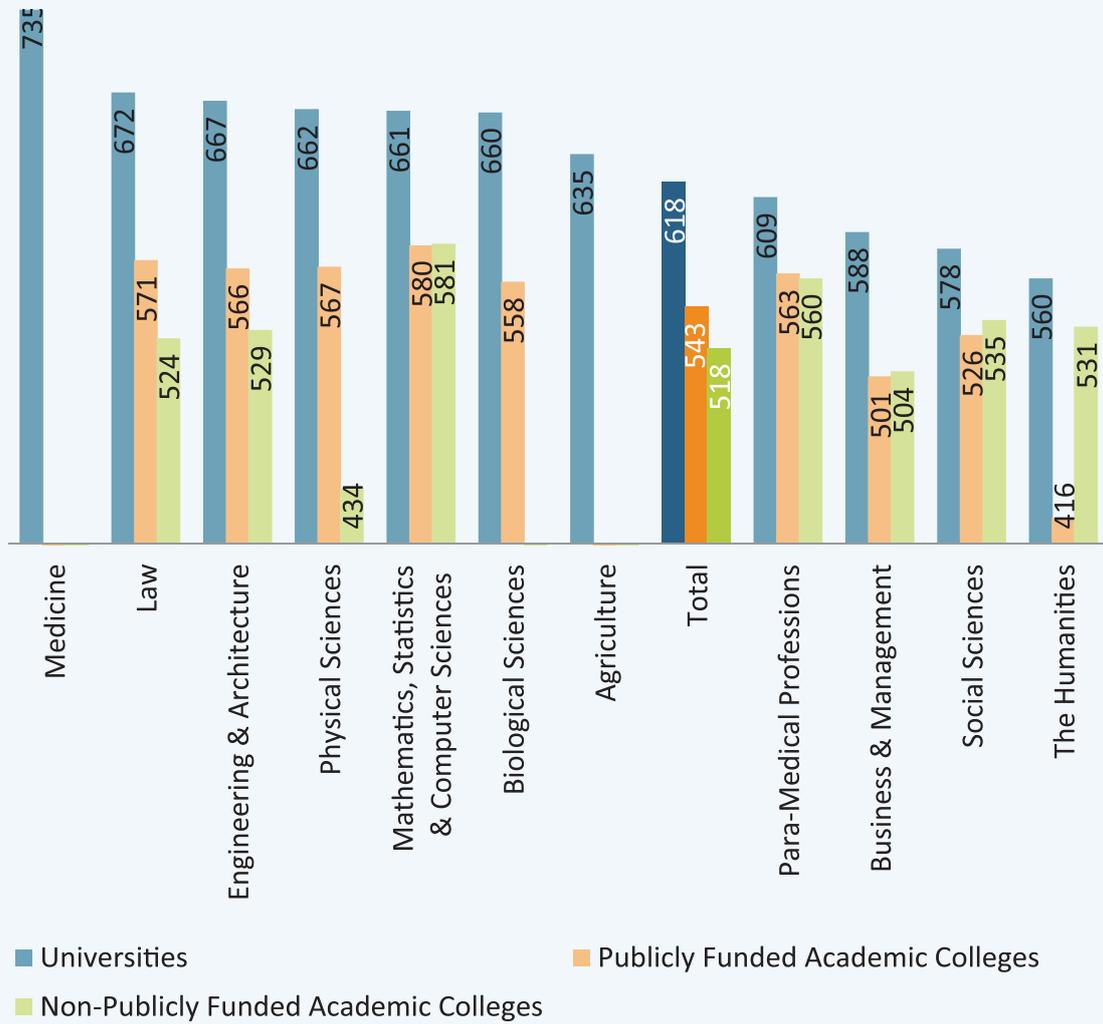
- The average Psychometric Entrance Test grade of new university students studying in the fields of S&T in 2010/11 was 664.1 (out of a maximum score of 800), as compared with 583 in other fields (excluding medicine). Similarly, the average grade of new students in academic colleges is higher in S&T fields than in non-S&T fields – 567 versus 536, respectively – but it is still significantly lower than the grade in universities.

### **Grades of the Psychometric Entrance Test**

- One way of characterizing the demand for a specific field of study or subject and their level of selectivity is to examine the average Psychometric Entrance Test grades of applicants in this field or subject. Those grades indicate that the most selective fields of study in universities are Medicine, Law, Engineering and Architecture, and Natural Sciences.
- The percentage of university applicants who took the test was approximately 83% in 2012/13, and was higher than that of applicants to academic colleges, which was about 56% (64% of applicants to publicly funded colleges and 48% of applicants to non-publicly funded colleges) and that of applicants to academic colleges of education, which was 58%.
- Data show that the average grade in the Psychometric Entrance Test was higher among new university applicants than among new applicants to academic colleges also by fields of study. Among students attending academic colleges, the grades of students in publicly funded colleges are higher, in most fields, than those of students in non-publicly funded colleges.

## Average Grade in the Psychometric Entrance Test among First Year Undergraduates

by institute type and field of study, 2012/13





# Summary of Activities



## CHE and PBC Policy

### The Governance Committee

The Committee for Regulating the Governance in Higher Education (henceforth: The Governance Committee) is a public committee appointed by the Prime Minister, the Minister of Education, and the Minister of Finance, to reevaluate the structure of the institutions that regulate the higher education system (i.e., the CHE and the PBC) and examine the interface between these institutions and the government. The goal in establishing the Governance Committee was to reinforce the higher education system in Israel, improve its function, and enhance its ability to meet national objectives.

A number of goals were determined in the writ of the appointment of the Governance Committee:

- Finding a reasonable and sustainable balance that would maintain the autonomy of the system – which guarantees academic freedom and excellence – while allowing government policies and national needs to be addressed.
- Creating a coherent CHE/PBC institutional array that would ensure lasting structural stability while employing a system overview shared by all parties concerned.
- Increasing the ability of the higher education system (including universities, colleges, funded and non-funded institutes, and academic colleges of education funded by the Ministry of Education and by the PBC) to plan according to the goals and needs of the system, the economy, and society; and formalizing the connection between processes of planning, quality control, and accreditation.

To achieve these goals, the Committee was requested to discuss and make recommendations on the following issues:

- Designing a well-defined organizational/institutional structure for the CHE/PBC, while organizing the administrative structure, management hierarchy, division of roles, authorities, and responsibilities within this structure;
- Defining the relationships between the structure of the CHE/PBC and relevant government bodies, such that those relationships will maintain the system's autonomy while allowing government policies and national needs and goals to be addressed;

- The composition, tenure, means of selection, and appointment of members of these bodies, of major position holders in these bodies, etc.;
- Improving control processes, transparency, and public accessibility to information;
- Transitional provisions and necessary changes to legislation and/or government decisions.

The committee first convened in December 2013, and is expected to submit its recommendations during May 2014. Members of the committee, in addition to senior PBC and CHE representatives, include representatives of various institutes of higher education and of relevant government offices, including the Prime Minister's Office, the Ministry of Finance, the Ministry of Justice, the Supreme Court, and others.

### **Israeli Centers of Research Excellence (I-CORE)**

The Israeli Centers of Research Excellence program (I-CORE) is a major component of the multi-year higher education plan, in the framework of which leading research Centers in a variety of fields have gradually been established. Those Centers aim to fortify the Israeli research infrastructure in selected fields over time and to establish the research position of Israel at a global level, thereby encouraging collaborations between leading researchers in Israel and abroad. The program was adopted in a government decision in March 2010 (government decision number 1503, from 14/3/2010).

During the first wave of the program, four Centers of Excellence were established and became active in October 2011. During the second wave, 12 more Centers of Excellence were established and became active in May 2013. Of the 16 Centers, five are concerned with research in the humanities, social sciences, and law; and 11 are concerned with research in the exact sciences, engineering, life sciences, and medicine.

Each Center brings together a critical mass of researchers from the staff of various institutes of higher education and research, who are excellent in their fields. These experienced researchers are joined by new and promising researchers, whose addition is accompanied by generous research and equipment grants. The young researchers are appointed as academic faculty in the institutes that make up the Center.

In each Center, major advanced research infrastructures of the relevant area are purchased or upgraded for the benefit of the entire academic community in Israel, enabling an optimal realization of Israel's scientific potential. In addition, researchers who are members of a Center receive a considerable budget intended for the ongoing maintenance of the Center, which includes maintaining international activities, awarding scholarships to graduate students and to post-doctoral fellows, purchasing equipment and materials, supporting technical and administrative staff, and more. Those means are intended to support both inter-institutional and international research collaborations, thereby promoting groundbreaking research.

The overall budget allocated to all 16 Centers is 700 million NIS – of which the PBC provides 450 million NIS – for a period of five years. With the establishment of the second wave of the Centers of Excellence, the foundational phase of the program was complete. At the current stage, in addition to the regular management of the Centers, emphasis is put on the process of monitoring, controlling, and evaluating the program and the Centers.

The Centers that were established thus far involve all research universities, The Open University of Israel, The Interdisciplinary Center Herzliya, and the Max Stern Yezreel Valley College. Other participating institutes are the Chaim Sheba Medical Center at Tel HaShomer, the Hadassah Medical Center, the Tel Aviv Sourasky Medical Center, and the Galilee Research Institute.

## **The Process of Transferring Academic Colleges of Education to PBC Responsibility**

At the end of 2011, a memorandum of understanding was signed between the Ministry of Education and the PBC concerning the gradual transfer of academic colleges of education to the responsibility of the PBC, subject to meeting certain prerequisites, such as financial solidity, proprietary rights in land, size of institute, etc., either independently or by way of a merger with another academic institute. This agreement was signed following the recommendations of a number of committees that had been formed to examine the conduct of academic colleges of education and the quality of its professional teacher training.<sup>1</sup>

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1 Ben Peretz (2001), Ariav-Katz (2004), Tomer (2004), Dovrat (2005), Ariav (2006) committees.

At present, the responsibility for planning and budgeting all publicly-funded academic institutes, except for the academic colleges of education, lies with the PBC. Thus, the transfer will enable incorporating the teacher training system within the higher education system, at the responsibility of the accepted bodies. The transfer will also allow adjustments to the academic norms of the PBC in various aspects, including the academic and administrative autonomy of institutes (according to clause 15 of the CHE Law), the development of education-supporting fields, updating the teaching models according to accepted academic standards, working within a multi-year budgetary and academic framework, and more.

Towards the beginning of the academic year 2012/13, The School of Education of the Achva Academic College was transferred to the responsibility of the PBC by means of its merger with the general Achva Academic College, which is under the responsibility of the PBC. In accordance with the instructions of the Minister of Education and the chairman of the PBC, professionals from the Ministry of Education and from the PBC have begun collaborating to outline the gradual transfer of additional colleges in three stages, respective of the colleges' readiness for the transfer on the one hand, and sector deployment demands on the other, subject to the prerequisites. The first stage is expected to take place during the academic year 2014/15; at this stage, the Kibbutzim College and the Beit Berl College, which have been found to be the most qualified for transfer, are expected to be transferred. At the second stage, up to three additional colleges are expected to be transferred: two colleges that meet the sectorial layout of the system (one college from the national religious sector and one college from the Arab sector), and another college that will be found suitable. In the third stage, more colleges, which currently do not meet the prerequisite terms specified and which require additional time to prepare and make adjustments for the transfer, will be transferred.

In addition, a mechanism will be established for coordinating between the Ministry of Education and the PBC. This mechanism will ensure the collaboration of the two offices in order to adjust, regulate, and channel the format and extent of the preparations according to the needs of the system.

## **Criteria and Prerequisites for Requesting a License and Recognition as an Institute of Higher Education**

Since the beginning of the 2000s, we have witnessed the establishment of numerous academic institutes in Israel. In some of these institutes, problems have recently been discovered with regard to academic, financial, and legal aspects. The increase in the number of institutes was not matched with an adequate increase in the number of senior staff members, and the severe shortage in senior academic staff in the entire academic system is, lately, more prominent than ever. Moreover, some of the academic problems stem from the size and proficiency of the staff in many institutes, which do not always provide an adequate and multifarious academic level. In addition, some institutes that have received a license/recognition as non-funded institutes, have run into financial difficulties shortly after becoming active, hindering their proper functioning. Legal/corporate issues also rise occasionally and may impede the independence of the institutes and their proper functioning.

This situation has required that the PBC and CHE employ a systematic perspective and reconsider the level and nature of the academic prerequisites for the establishment of new institutes, while emphasizing institutional-level criteria. To maintain the academic level, financial robustness, independence, and proper management of institutes of higher education, as well as the spirit and quality of the higher education system, while at the same time constructing a multidisciplinary academic environment, the need arose to revisit the criteria for licensing and recognizing institutes of higher education.

Those criteria, which were based on the need to maintain the academic level of the institute, together with a proper, stable, and responsible management, while considering the main components that such institutes must comprise, include defining the purpose of the institute, its manner of governance, its financial robustness, its size and infrastructure, the variety of disciplines that it offers, and its academic strategy.

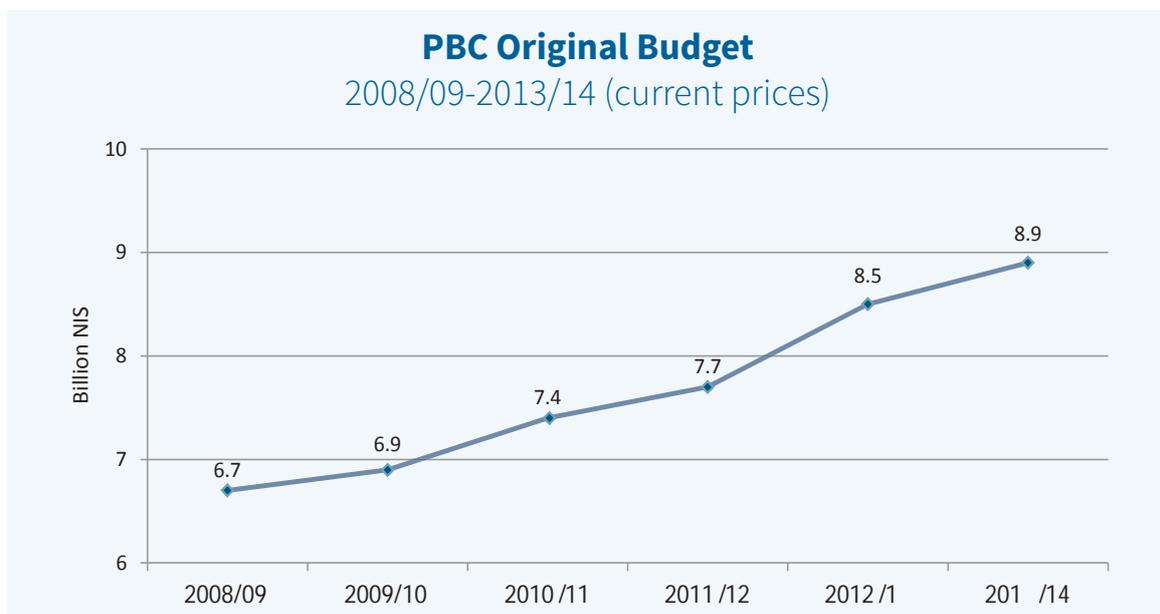
## Budget and Setting Priorities

### 2013/14 Budget

The regular PBC budget for the academic year 2013/14 was 8.9 billion NIS, an increase of 443 million NIS relative to the previous year's budget (in current prices). This budget includes, among other items, an additional 280 million NIS according to the multi-year plan for the years 2011-2016, which sets the goal of encouraging scientific research excellence, improving the quality of teaching and acquired human capital, and increasing accessibility to the Ultra-Orthodox Jewish sector and to ethnic minorities. Among other elements, this budget was aimed at encouraging the growth and renewal of staff in universities and colleges, increasing the number of students in the colleges, increasing competitive research grants through the Israel Science Foundation, and encouraging scientific collaborations with the European Community.

The 2013/14 budget also includes other designated budget increases (for increasing the number of medical and nursing students, Technology Transfer for colleges, academic collaboration with East Asia, etc.), the updating of indexes, and a cutback of approximately 90 million NIS in the government budget.

The total budget of the higher education system has grown by 2.2 billion NIS (in current prices) in the years 2009-2014. The major budget increase in this period was intended for recruiting new staff members (a 24% increase), for improving accessibility to special populations (a 123% increase), and for research funds (a 26% increase).



## Central Research Infrastructures in Academia

Central Research Infrastructures (CRIs) in academia are the foundation of growth potential and research innovation and are used as an engine of economic and social growth. Advanced CRIs become more expensive and complicated with time, and thus require more extensive and diverse manpower for their construction and maintenance. In many instances, national or international collaborations are required to construct and operate them. Therefore, in the past decade, many countries have begun planning the construction of CRIs, employing a systematic overview and setting priorities for several years ahead.

The PBC's multi-year program focused on incentivizing institutes and providing them with the tools to bring back Israeli researchers from abroad, to recruit new researchers, and to increase dramatically the budgets of competitive research grants. For these efforts to be fruitful in the long term, they must be accompanied by a proper research environment, including the availability of advanced research infrastructures.

Accordingly, the PBC has decided to conduct proactive strategic planning for the medium- and long-term that will allow it, while considering priorities, to develop and construct academic CRIs and to join existing international research infrastructures. At the end of 2012, the PBC decided to form a permanent advisory steering committee to the PBC for matters of academic CRIs, headed by Prof. David Horn, with the following roles:

- A. Mapping the academic CRIs;
- B. Forming a proposal for a prioritized roadmap of required infrastructures;
- C. Examining proposals and opportunities that regularly arise for new infrastructures and for joining international infrastructures, and assessing their consistency with the roadmap.

The advisory committee and six field-specific subcommittees examined the existing infrastructures, assessed the needs and requirements, and formulated the order of priorities and relevant recommendations for the PBC. Those recommendations appear in the first roadmap of research infrastructures for academia for 2013<sup>2</sup>. This mechanism will function dynamically and the recommendations will be updated periodically.

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2 The roadmap of research infrastructures: <http://che.org.il/?p=30767>

The PBC discussed the recommendations of the committee in December 2014 and decided to give its blessing to the process, while examining the advancement of the various infrastructures and appropriating a budget for this purpose already in the current budgetary year. The advancement and examination of some of the infrastructures is already underway – a proposal for creating an infrastructure for genetically engineered mice was handed over to the National Infrastructure Forum for Research and Development (TELEM). The PBC has asked institutes to provide information that would facilitate the implementation of the "remote access to CBS data" infrastructure, and has approved an infrastructure supporting the computerized cloud.

The "Roadmap for Central Research Infrastructures" document is to be updated in the coming year according to the feedback of the research community and to further information that will be added.

## Physical Infrastructures

### The Construction of Infrastructures: A Competitive Program

As was decided in the multi-year program of the PBC and the Ministry of Finance, the PBC approved, in 2011, a model in the amount of 400 million NIS for the years 2010-2016, to be allocated to and implemented in the development of the physical infrastructures of institutes that are funded by it. In addition to this budget, which is fully designated for new construction projects, other sums have been appropriated for upgrading infrastructures in existing buildings and for assisting with accessibility adjustments for the disabled.

The multi-year infrastructure development model was divided to two programs:

- A. In the first program, 300 million NIS were allocated, based on needs, reserving a multi-year budget for institutes in which the total ratio of area/student (by field of study) is lower than the system's target after weighing the characteristics of outlying and priority areas.
- B. In the second program, defined as a competitive program, another 100 million NIS were allocated. The program will come about in two stages: the first stage in the years 2013/14 and the second stage in 2015/16.

The competitive program is conducted for the first time as part of the PBC's multi-year plan, as previous programs included only needs-based allocations. The competitive program enables flexibility in allocating funds as part of the multi-year plan, promoting additional policy goals and supporting specific projects that have a unique contribution on the basis of defined competitive principles. This program thereby complies with the principle of long-term planning that is manifested in the allocation program.

In January 2014, the first stage of the competitive program was begun. Close to 20 projects were examined by a judging committee appointed by the PBC, which ranked the proposals according to the following prerequisites and criteria: recruiting new staff in accordance with PBC objectives, highlighting the relative advantages of the institute, and the unique regional contribution that the institute has to offer. Additional points were awarded for the use of appropriate methods of execution, such as establishing a maintenance fund or "green building".

In accordance with the committee's decisions, the PBC has approved the support of nine projects in various universities and colleges: the Technion Institute of Technology, the University of Haifa, Tel Aviv University, Ben-Gurion University of the Negev, the Weizmann Institute of Science, the Ariel University, the Max Stern Yezreel Valley College, the Ruppin Academic Center, and the Shenkar College of Engineering and Design.

These projects will receive support from the PBC according to the predetermined rates of the PBC's participation in construction or according to the amount requested by the institute (the lower of the two), subject to overall budgetary constraints.

During 2016, towards the end of the multi-year plan, the second stage of the competitive program is expected to take place.

## **Dormitories**

In 2012, the PBC and the Ministry of Finance agreed on a joint program, the first of its kind, which financially supports the construction of student dormitories in institutes funded by the PBC, in the extent of 100 million NIS. This is the first time that the PBC supports this issue, which required a comprehensive preliminary examination of the field of dormitories in general, and, in particular, of the conditions in each institute with respect to economic and functional capability, housing alternatives in the area, availability of land, the planning and permit-receiving terms, etc.

Within the framework of this program, 25 proposals for dormitory construction projects were received, of which 14 projects were selected. Selection was based on criteria according to the objectives of the program, as defined in the agreement between the PBC and the Ministry of Finance. The main criteria concerned the establishment of a supply of accommodation alternatives that would help reduce demand pressures in the general housing market and the economic burden on students. In addition, other goals were set for the program, such as providing local solutions for outlying regions that are typically characterized by insufficient accommodation in the vicinity of the institutes, or in transportation difficulties. By the beginning of 2013, the PBC had approved funding for the 14 winning projects, facilitating the construction of dormitories in the overall capacity of over 3,000 "beds"; some of those projects are currently in the tender stage or in early execution stages. Following the first program and the significant demand for dormitories by the various academic institutes, it has been agreed recently by the Ministry of Finance that an additional 160 million NIS will be allocated to facilitate a second program for constructing student dormitories, which would extend the first program and will be implemented through two Requests for Proposals (RFPs). The first RFP will be intended for the institutes funded by the PBC; conditions will be similar to those of the first program and on the basis of the background work on these institutes that was made during the first program.

In the second RFP, due in about six months, institutes not funded by the PBC will be allowed to participate, to the extent possible, through cooperation with local authorities for the construction of large projects. To extend the support to institutes not funded by the PBC, mechanisms for coordinating the mapping, execution, and control of the dormitory projects in the different institutes and involving all the relevant entities will be developed in the upcoming months before publishing the RFP.

## **International Academic Involvement**

### **Promoting Academic Collaboration with East Asia**

In the academic year 2012/13, the CHE/PBC started implementing a comprehensive program for developing academic relations with China and India and for strengthening the international academic standing of Israel. Today, the academic collaboration between Israel and these countries

is growing and, in the academic year 2013/14, about 450 students and postdoctoral fellows from China and India have joined Israeli institutes of higher education. The program is currently conducted through the following four channels of activity:

- A. Joint Research Grants** – between the Israel Science Foundation (ISF) and the corresponding foundation in China (NSFC): In the first cycle, 89 joint research proposals were submitted in the fields of physics, chemistry, and agriculture, of which 12 proposals were selected for funding. In the second cycle, 62 joint research proposals were submitted in the fields of life sciences and medicine, and are currently at the selection stage. In addition, an RFP was released for joint research grants by the ISF and the University Grants Council (UGC) in India. As part of the joint program with India, an RFP was released this year for joint research proposals in the fields of exact sciences and the humanities. Sixty-six research proposals have been submitted and are currently being evaluated. The selected proposals will be funded in 2014/15.
- B. Funding for Chinese and Indian Postdoctoral Fellows** – 100 three-year fellowships are offered annually for outstanding postdoctoral researchers from China and India, in all fields of study. In 2012/3 and in 2013/14, about 170 Chinese and Indian postdoctoral fellows were recruited to the various research universities in a variety of fields. In 2014/15, 100 additional postdoctoral fellows are expected to enter the program.
- C. Encouraging Enrollment of Chinese and Indian Undergraduate and Postgraduate Students** – the publicly funded institutes of higher education in Israel operate a program for recruiting 100 outstanding students from China and India every year. The PBC's funding of the selected programs includes a one-time budget for translating the program to English, marketing the program, providing a support package for the program, and awarding scholarships to outstanding students. Thus far, seven programs have been selected and have awarded scholarships to outstanding students from China and India in a variety of fields, including engineering, chemistry, archeology, Middle East and Islamic Studies, international business administration, and desert studies.
- D. A Program for Outstanding Students from China and India to Take Summer Courses in Israel** – the program aims to enroll 250 students

from China and India for summer courses in Israel, with the aim of gaining recognition for Israeli academia and encouraging students from China and India to enroll in advanced degree studies in Israel. Thus far, 10 courses have been selected that offer scholarships to outstanding students from China and India in various fields, including desert studies, basic Hebrew proficiency, mathematics, engineering, space studies, entrepreneurship and business, agriculture, information security, and more. The first class commenced in the summer of 2013, with 180 students from China and India, and we expect to admit some 250 more students in the second class, in the summer of 2014.

As part of the activity of the PBC/CHE for promoting academic collaborations with China, representatives of the CHE participated, in November 2013, in an international convention in China that aims to attract Chinese students to advanced study programs around the world. A booth was set-up at the conference for the Israeli academia, in which representatives from eight Israeli institutes of higher education participated, including from Tel Aviv University, the Hebrew University of Jerusalem, the University of Haifa, Bar Ilan University, Ben-Gurion University of the Negev, the Technion – Israel Institute of Technology, the Shamoon College of Engineering, and the College of Law and Business. In addition to participating in the convention, representatives of the CHE visited leading universities in China. The CHE intends to participate in the next convention as well.

As part of the international involvement of Israeli academia, a "Study in Israel" portal will soon be established that will compile information in English on all study programs in all institutes of higher education in Israel, and that will accumulate useful information for foreign students in one single, easy to use portal.

## **The European Union Framework Programme for Research and Innovation (Horizon 2020)**

The European Union Framework Programmes for Research and Innovation are the largest programs in the world for scientific and industrial collaboration. The current framework program, which started in 2014, is the Horizon 2020 program. The extent of the program is expected to be €77 billion for a period of 7 years (2014-2020).

In participating in this program, Israel aims to open a gateway for Israeli bodies to integrate strategically within Europe's research, development,

and marketing frameworks and to increase the areas of activity of the Israeli industry worldwide. Horizon 2020 includes three main tracks:

- A. The "Excellent Science" track** aims to recruit, encourage, and cultivate excellent researchers. It includes research grants, investment in infrastructures, and more.
- B. The "Industrial Leadership" track** aims to invest strategically in key technologies, to encourage investments in research and innovation, and to encourage and assist small and medium companies in various fields.
- C. The "Societal Challenges" track** aims to encourage breakthroughs by means of multidisciplinary scientific collaborations in fields such as medicine, food, transport, and more.

In addition, the program provides support for three sub-tracks that focus on the rapid development of medicines ('Innovative Medicines Initiative'), on research and development in aeronautics, namely, for developing innovative technologies to apply in air transport in order to reduce environmental damage ('Clean Sky'), and on long-term and groundbreaking research and development of hydrogen and fuel cell technologies.

Israel's share in funding the European research and development programs is determined according to the proportion of the local GDP of the total European GDP (including Israel). Israel's share in the new program will be funded as follows: PBC – 50%; the Ministry of Economy – 35%; the Ministry of Science – 10%; and other relevant ministries – 5%.

Unlike the EU's Seventh Framework Programme for Research (FP7), which ended in 2013, joining Horizon 2020 involves significantly greater costs to the PBC. Those increased costs are derived from the higher total cost of the program – from approximately €55 billion in FP7 to approximately €77 billion in Horizon 2020; from the higher share of the PBC in funding Israel's participation in the program, from 45% in FP7 to 50% in Horizon 2020; and from the growth in Israeli GDP relative to the European average.

## **The European Organization for Nuclear Research (CERN)**

The European Organization for Nuclear Research (Conseil Européen pour la Recherche Nucléaire; CERN) is the largest and most advanced center for particle research worldwide. Although Israeli scientists have been active in CERN since 1991, in 2011 Israel has become the first non-European country to be accepted as a full member of this prestigious project.

Israel's annual membership fees in the project are in the amount of €13.1 million, which are funded, as specified in government decision 3159 from 17/4/2011, as follows: PBC – 52%; the Ministry of Economy – 17%; the Ministry of Science, Technology and Space – 7%; the Ministry of Foreign Affairs – 7%; Prime Minister's Office – 10%; Ministry of Finance – 7%.

In addition, the PBC and the participating universities fund Israel's membership fees in the ATLAS detector in CERN, as well as the participation of Israeli scientists in various research and development programs in CERN and the activities of the National Committee for High Energy Physics of the Israeli Academy of Sciences and Humanities that is responsible for issues regarding CERN.

## **Promoting of Specific Populations in Academia: Women, Ultra-Orthodox Jews, and Arabs**

### **Promoting the Representation of Women in the Staff of Institutes of Higher Education**

The representation of women among senior academic staff is currently low and is characterized by gender separatism across all fields of science, on both lateral and vertical levels, and by a low participation percentage even by international standards – the rate of women senior staff members at universities in Israel was 28% in 2010/11, as compared to the average rate of women staff members in 27 European Union countries, which is estimated to be about 40%<sup>3</sup>. The representation of women among students of different degrees also varies significantly from field to field and reflects gender obstacles and traditional gender views. The CHE and PBC have recognized the promotion of representing women as an important objective, both for reasons of justice and fairness and for the sake of promoting academic excellence in itself.

To promote better representation of women in the academic staff of institutes of higher education, a team headed by Prof. Rivka Carmi (and known as "the Carmi Committee") was formed in February 2011 to recommend relevant courses of action.

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3 Source of the international data: "She Figures 2012", Gender in Research and Innovation, Statistics and Indicators, European Commission, 2013.

In order to continue to advance the issue of the representation and promotion of women in institutes of higher education, it was decided to establish a permanent, joint CHE–PBC steering committee headed by Prof. Ruth Arnon, the President of the Israeli Academy of Sciences and Humanities. The committee serves also as a sub-committee of the National Council for the Promotion of Women in Science and Technology of the Ministry of Science, Technology and Space.

According to the CHE–PBC decision, and in coordination with the Ministry of Science, Technology and Space, the mandate of the committee is as follows:

- A. Mapping all bodies that are active in issues of the representation and promotion of women in the higher education system;
- B. Monitoring and overseeing the implementation of the recommendations of the Carmi Committee;
- C. Formulating further relevant recommendations and presenting them for discussion in the CHE and PBC;
- D. Collecting and assembling contemporary data and monitoring the current situation and the progress of the issue in the institutes of higher education;
- E. Reporting annually to the CHE, the PBC, and the National Council for the Promotion of Women in Science and Technology on the representation and promotion of women among the student population in different fields, in the academic staff of different disciplines, and in applications for and awarding of research grants.

As a first step, the committee decided to examine three fundamental issues: directing women in advanced degrees toward research in academia; recruiting women as new staff and promoting women within the academic staff; and the applications for and awarding of research grants.

At the same time, the committee urged all institutes of higher education to implement the recommendations of the Carmi Committee, which were approved by the CHE and PBC<sup>4</sup>. In addition, aiming to support women continuing to postdoctoral research abroad, the PBC will continue – for the second year – the scholarship program for outstanding women postdoctoral researchers. Furthermore, to encourage high-quality yet flexible postdoctoral

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4 The recommendations of the Carmi Committee to the institutes:  
[http://che.org.il/?page\\_id=25945](http://che.org.il/?page_id=25945)

research, women who conduct their postdoctoral research partly in Israel and partly abroad will also be eligible for this scholarship in upcoming years.

## **Ultra-Orthodox Jews in Higher Education**

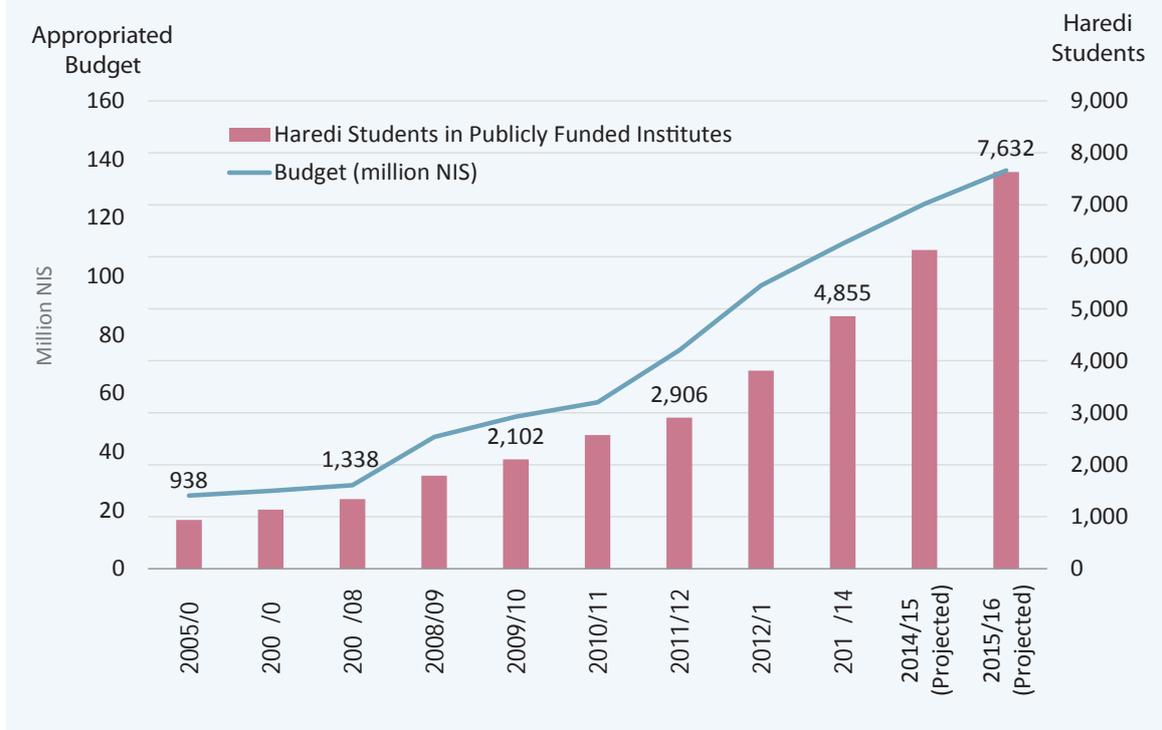
### **Frameworks for Ultra-Orthodox Students ("MAHAR Programs")**

The PBC devotes much effort and resources to improving access to higher education for the Ultra-Orthodox population and to integrate this population within the labor market and society in Israel. These efforts rest on three guiding principles: first, the recognition of the unique features of the Ultra-Orthodox population; second, the inclusion in academia of Ultra-Orthodox Jews who wish to study, while respecting their way of life and providing a proper response to their needs and aspirations; and third, the recognition of the wide diversity within the Ultra-Orthodox sector, and, accordingly, offering a wide variety of solutions.

In accordance with those principles, ten academic campuses for Ultra-Orthodox students were established in the past two years as part of the MAHAR program, which operate under the full responsibility of the recognized institutes of higher education. These MAHAR campuses were established throughout the country and in various fields of study, and more campuses are in construction stages. In 2013/14, some 4,855 Ultra-Orthodox students studied in publicly funded institutes of higher education, of whom more than 1,600 studied in the ten aforementioned campuses.

In addition to the activities of the publicly funded institutes of higher education, the non-publicly funded academic institutes also attempt vigorously to enroll Ultra-Orthodox students. For instance, the Ultra-Orthodox campus of the Ono Academic College (which has been active for more than a decade) has recently extended its activity to include the health professions, and other non-publicly funded academic institutes have been working in the past few months on establishing special campuses or other designated programs for Ultra-Orthodox students. Among these institutes are The College of Management – Academic Studies, The College for Academic Studies in Or Yehuda, and Netanya Academic College. Academic colleges of education are also extending their activities involving the Ultra-Orthodox sector. Particularly notable are the activities of the Jerusalem College of Engineering, the Herzog College, the Beit Berl College, Hemdat HaDaron College, and the Sha'anani Academic Religious Teachers' College.

## Ultra-Orthodox Students Data and Budget In Funded Institutes of Higher Education



### Tuition Fee Loans and Scholarships

As a complementary step to the establishment of the MAHAR programs, the PBC has also established the scholarships and loans program for Ultra-Orthodox students in higher education. In 2013/14, about 1,000 Ultra-Orthodox students took part in a program, in which every Ultra-Orthodox student who studied for a degree in any kind of institute and who met certain socioeconomic criteria was eligible for a loan to pay tuition fees. After the student receives certification of eligibility for an academic degree, a portion of the loan becomes a scholarship, depending on the field of study: 70% of the loan will become a scholarship for students in practical fields that are in demand on the market, and 40% of the loan will become a scholarship for students in other fields.

The PBC and CHE collaborate with the Ministry of Education and the Ministry of Economy to meet other challenges relating to the academic and professional integration of the Ultra-Orthodox sector, including, among others, finding high-quality employment for graduates, training male teachers in the Ultra-Orthodox educational system, and integrating Ultra-Orthodox students in advanced studies in regular (non-MAHAR) frameworks.

## Pluralism and Increasing the Accessibility of the Higher Education System to Arab, Druze, and Circassian Societies

The PBC strives to improve the accessibility of the higher education system to Israeli Arabs, Druze, and Circassians. Since the beginning of the multi-year plan, the PBC has been consolidating and implementing a holistic program for this population, which tackles all relevant obstacles that hinder the advancement of the Arab population<sup>5</sup>, from high school through advanced studies, to integrating within the labor market. The program is supervised by a steering committee headed by Prof. Faisal Azaiza, Vice Chair of the PBC. In view of the complexity and importance of the issue, the PBC has stipulated that, as a precondition for funding an institute by the PBC, the institute must appoint a person responsible for improving the accessibility of higher education to Arabs, , and that this person be in direct subordination to the president or to the rector. The PBC has also required that the websites of publicly funded institutes be translated into Arabic. The main emphasis of the program is on the following issues:

- A. Improving the availability of information and professional guidance regarding higher education by means of extending the "Hesegim" ('Achievements') information centers to Arab settlements (in which there are currently no such employment information centers) and holding activities for high school students to expose them to and prepare them for academia (a joint program of the PBC, the Ministry of Education, and the Prime Minister's Office, which is currently in its final preparation stages);
- B. Adjusting pre-academic preparatory courses to the needs of Arab students by means of a special assistance package for the classes that are funded by the PBC and awarding excellence scholarships to outstanding students who continue to undergraduate studies;
- C. Supporting Arab undergraduate students (mainly during their first year of study) with the aim of encouraging high quality integration in the studies, while reducing dropout rates, prolongation of studies, or switching between majors. In this framework, a budget was directed to institutes funded by the PBC to provide social and academic support, personal

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5 Terms such as "Arab population" and other similar phrases, where used, refer to the Arab, Druze, and Circassian society as a whole, while acknowledging that there are great differences among its different populations.

counseling, improving learning and language skills, etc. The institutes are allowed flexibility in the distribution of this budget according to the different requirements of students, subject to supervising by the steering committee. In addition, to facilitate the initial encounter of undergraduate Arab students with academia and with the Hebrew language and Israeli culture, the program "One Step Ahead" commences approximately two months prior to the beginning of the academic year and offers courses for language enhancement, academic orientation, and so on.

- D. Awarding tuition fee scholarships to undergraduate students from low socioeconomic backgrounds studying in "preferred" fields; this is a joint program of the PBC, the Prime Minister's Office, the Ministry of Education, Mifal HaPayis (the National Lottery of Israel), and philanthropic foundations abroad. The scholarship is awarded for the standard duration of the student's degree studies and consists of a stipend of 10,000 NIS awarded in the first two years and 5,000 NIS for the remaining standard years until graduation. The program started in 2013/14, awarding scholarships to 650 Arab students.
- E. Helping Arab students who are in their last year of study to join the labor market by providing employment guidance (e.g., writing a CV, preparing for job interviews, or meetings with employers).
- F. Awarding excellence scholarships to Arab students in advanced studies, including students in research Master's degree, doctoral students and postdoctoral fellows who conduct their studies in leading institutions abroad, and awarding Ma'of scholarships to outstanding senior academic staff from the Arab community.
- G. A Forum of Program Heads and Coordinators of the institutes funded by the PBC was established this year in collaboration with the Van Leer Jerusalem Institute. The aim of this forum is to establish a body of knowledge common to the institutes and to the PBC in order to improve the implementation of the program and share knowledge between the institutes.
- H. Other issues concerning the Arab society that are on the PBC's agenda include transferring a teachers' training college in an Arab settlement from the Ministry of Education to the PBC, establishing an extension of an institute in an Arab settlement in northern Israel, and considering unique academic solutions for the Bedouin population.

## Promoting Other Issues

### A Decade of Activity in the Quality Assessment System

In 2003, the CHE decided to establish a quality assessment system and a separate administrative unit within the CHE secretariat that will operate, in practice, the quality assessment system. Accordingly, in April 2004, the Quality Assessment and Assurance Unit was established and the quality assessment system went into operation with the assessment of two disciplines (as a pilot).

In September 2010, after six years of operation, the Unit of Quality Assessment and Assurance became a separate division – The Quality Assessment Division – as part of the multi-year agreement between the PBC and the Ministry of Finance.

The goals of the quality assessment system were defined at the time by the CHE as follows:

- A. Creating a culture of self-assessment within the institutes of higher education in Israel, manifested primarily in the establishment of internal mechanisms to regularly assess academic quality and improve any faults found;
- B. Publically publishing information concerning the process of assessment and promoting continual improvement in institutes of higher education;
- C. Assisting the overall planning and budgeting process of the higher education system;
- D. Assuring the continued integration of the Israeli academic system within the global academic system, which considers quality assessment processes as a cornerstone in the globalization process of higher education.

It was determined that the quality assessment system will operate according to a four-stage model:

- A. Self-evaluation: Conducted by the assessed institute and academic unit, and ending with the institute submitting a self-evaluation/self-study report.
- B. Evaluation by an international assessment committee: The CHE appoints an external international committee that evaluates the function of all departments across a particular field of science. At the end of its

work, the committee submits detailed reports to the CHE concerning each evaluated department, as well as an overall report evaluating the nationwide situation in the field to determine whether Israel is located at the forefront of research and curriculum in the field.

- C. The CHE discusses the recommendations of the international committee and decides how to act upon them. Then, the reports of the committee, the responses of the institutes, and the decisions of the CHE are published on the CHE website.
- D. At the end of the process, the implementation of the recommendations of the committees and the decisions of the CHE continue to be monitored.

By the academic year 2013/14, about 50 fields that are studied at 317 faculties and departments in 26 institutes of higher education (universities and academic colleges) had been evaluated, and the international committees produced 328 reports outlining the situation in each field from an institutional and nationwide perspective. In the current year of 2013/14, the implementation of the recommendations of the evaluation committees in 26 fields including 124 departments is actively monitored.

The outcomes of the quality assessment activities have manifested in both the departments and institutes that were assessed, and among policy makers in the field of higher education. This activity appears to have influenced the multi-year program (signed by the PBC and the Ministry of Finance in August 2010) by surfacing certain issues across the system. The main issue is the lack of senior academic staff in major disciplines; in some instances, this situation is so severe that a critical mass of staff is lacking (which puts the continued existence of those disciplines in question), and the level of erosion in both educational and research infrastructures is evident. The results of the quality assessments are also manifested in changes in the budgeting model of the PBC, including changes to the budgeting rates, determining student to staff ratio, and more.

Currently, after a decade of activity in the quality assessment system, and after most of the fields of study in Israel have been assessed, discussions are being held regarding the future activities of the quality assessment system in light of the challenges that the higher education system faces.

## Enrichment Studies during Bachelor Degree Studies

In the academic year 2010/11, the PBC and CHE initiated the Enriching Studies Program as an integral part of undergraduate studies. This program is given independently from the main discipline of the student and it has been identified as an important tool for shaping the image of the bachelor degree graduate as an educated person knowledgeable in various fields beside those of his or her main discipline. The PBC has decided to participate in funding the development of designated enriching courses in the institutes.

The Enriching Studies Program comprises knowledge-expanding courses in various fields. The courses, developed specifically for this program, are at the extent of at least 6-10 academic units of credit, and are taught by the best teachers in academia. According to the program, undergraduate students in the fields of humanities, for example, are required to enroll in enrichment courses in other disciplines, such as exact sciences, natural sciences or social sciences, and vice versa.

Accordingly, in the academic year 2010/11, the PBC issued a first RFP for Enriching Studies Programs and allocated support for this purpose. In the academic years 2011/12 and 2012/13, Enriching Studies Programs were approved in nine institutes (universities and academic colleges), including **276 courses** that were approved for funding, of which 157 were new courses and 119 were upgraded existing courses.

The higher education system has begun assimilating the idea of Enriching Studies. With the purpose of extending and diversifying activities in these programs, and as the first RFP has ended, the PBC issued a second RFP in the academic year 2012/13 to which new directions have been added. The second RFP, the second stage of which ended at the beginning of February 2014, sought to extend the program and permitted, beyond the development of designated courses, two new "formats" for courses:

- A. Courses offered as part of collaborations between institutes, such that institutes lacking the necessary field diversity for constructing an Enriching Studies Program will be able to purchase courses from institutes in which such programs have been approved;
- B. Developing "flagship courses" (such as: "Great Books, Great Ideas") that are intended for a wide population of students within the institute, and that can be taught later through Distance Education Technologies. In the academic years 2012/13 and 2013/14, some 48 Enriching Studies

Programs were approved for funding in three institutions, including 47 new courses and one "flagship course".

On 20/1/2014, a conference on Enriching Studies was held in collaboration with the Van Leer Jerusalem Institute. Among those invited to the conference were the program heads from the institutes, lecturers teaching in the programs, and two guests from the United States of America, Prof. Christia Mercer from Columbia University and Prof. Thomas Christensen from the University of Chicago, who are both involved in Core Curriculum (flagship courses) in their institutes. The conference provided an insight to the situation in the United States and outlined the challenges that are faced by the implementation of the courses.

A special steering committee of the PBC and CHE, headed by PBC member Prof. Malka Rappaport Hovav, has accompanied the process from its inception and is responsible for the approval of recommended programs.

## **The Humanities Fund**

Over the past few years, the PBC has been operating in various aspects to promote the field of the humanities. As part of these activities, the Humanities Fund was established in 2008 in a joint initiative of the PBC and 'Yad Hanadiv' Foundation to fund research in and the development of the humanities, and to implement some of the recommendations of the Shohat Committee's report on the difficult condition of the humanities in Israel. The purpose of the fund is to support the long-term viability of the humanities in Israeli universities by, but not limited to, inter-university collaborations and teaching innovations.

This fund was allocated 30 million NIS, equally divided between Yad Hanadiv and the PBC, which were used for operating 25 programs over four cycles. In light of the common desire of Yad Hanadiv and the PBC to continue supporting the joint foundation, the PBC approved, on 21/11/2012, a new multi-year layout for the fund at the additional cost of 60 million NIS to be funded jointly by the PBC, Yad Hanadiv, and the universities. In the new layout, the fund focuses on three channels:

- A. Formulating structured, inter-university, international-level programs for outstanding advanced-degree students, with the goal of establishing communities of research students and of effectively advancing the research forefront in the humanities.

- B. Increasing the number of outstanding Bachelor degree students by combining existing programs in the humanities and in other disciplines and turning them to programs designated for outstanding students.
- C. Developing extensive undergraduate study frameworks by establishing cross-departmental programs while pooling resources and formulating disciplinary core courses that would serve a number of study programs in a number of departments.

### **The Supreme Steering Committee of the PBC/CHE for the Humanities in Higher Education in Israel**

In a meeting that took place on 7/5/2014, the PBC decided to establish a Supreme Steering Committee for the Humanities in Higher Education in Israel. This Committee will be responsible for coordinating initiatives of the PBC and of various other bodies working on promoting the humanities as a field in the Israeli higher education system, thereby assisting in the promotion and development of the field.

The roles of the committee are:

- A. Accumulating and distributing data regarding the state of the humanities in the institutes and the various initiatives in the humanities.
- B. Analyzing the data and examining ways to cope with the challenges that the humanities face in institutes of higher education, mainly by conducting research, holding discussions, workshops, and conferences involving leading worldwide policymakers in the field of the humanities as well as deans and other major figures in faculties across the field.
- C. Forming a uniform policy for coping with the challenges of the humanities and recommending courses of action.
- D. Coordinating between the institutes in finding solutions to the challenges, and coordinating between the initiatives currently underway.
- E. Monitoring the implementation of said recommendations.

In addition to other responsibilities, the committee will consider the following issues:

- A. A thorough examination of the needs of research infrastructures in the humanities and recommending a mechanism for funding investments in research infrastructures in the field;

- B. Examination of all aspects of the issue of doctoral students in the humanities;
- C. Examination of the interface between the humanities in institutes of higher education, cultural institutes, and the education system.

The committee will be headed by PBC member Prof. Malka Rappaport Hovav, and will consist of CHE plenum members and of faculty from institutes of higher education. The Van Leer Jerusalem Institute and Yad Hanadiv Foundation will be partners in the committee as well. The CHE discussed and approved the matter in its meeting from 13/5/2014, and will discuss it again in one of its forthcoming meetings.