



Education in Israel



הלשכה המרכזית לסטטיסטיקה
Central Bureau of Statistics
دائرة الإحصاء المركزية



The data in this booklet provide information on the scope of education in Israel, the accessibility of education and its contribution to man and society.

The booklet reviews the subject of education in Israel, beginning with economic aspects - national expenditure and private expenditure on education, continuing with the scope of the education system and its characteristics (students and teaching staff), higher education and short-cycle tertiary education (students, degrees and fields of study), and finishing with the level of education and its connection to literacy of the adult population and participation in the labour force.

The sources of data on which the information in this booklet are based are the Ministry of Education, the institutions of higher education, the Ministry of Labor, Social Affairs and Social Services, the Central Bureau of Statistics surveys, and more.

Expenditure on Education

National Expenditure on Education

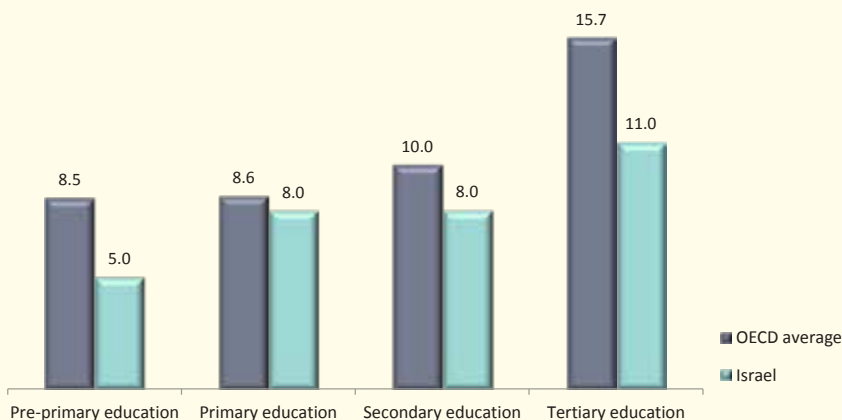
In 2017 national expenditure on education amounted to NIS 102.8 billion, comprising 8.1% of the Gross Domestic Product (according to an early estimate).

The general government sector (government, local authorities and non-profit governmental institutions) financed 77.5% of the total national education expenditure. The private sector (NPISH, households, and donations) financed 22.5% of the national expenditure on education.

In 2015 the share of national expenditure on education out of the Gross Domestic Product in Israel (6.8%) was one of the highest compared with the average in OECD countries (5.6%).¹

A comparison of the average expenditure per student in terms of Purchasing Power Parity (PPP), reveals that the expenditure in Israel at all levels of education was lower than the average in OECD member countries. It is important to bear in mind that the percentage of young people (aged 0-24) in Israel is higher than that in the OECD countries (42.7% compared to an average of 29.8% in 2015, respectively).

1 Average Expenditure on Education per Student in Public and Private Institutions by Level of Education, Thousands of Dollars, Based on Purchasing Power Parity (PPP), 2015



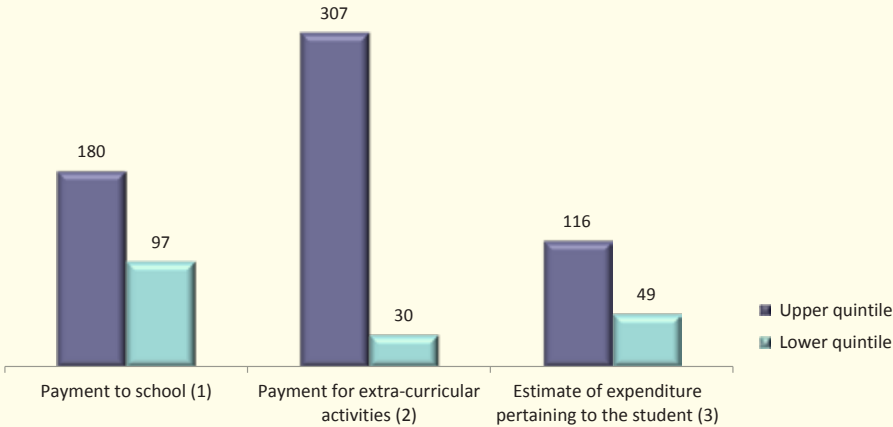
Source: OECD (2018) Education at a Glance 2018: OECD Indicators, OECD Publishing, Paris.

¹ The calculation includes pre-primary educational institutions (children aged 3 and up).

Private Expenditure per Student for Education Services

Private expenditure per student for education services in 2014 was a monthly average of NIS 328 per household. In a distribution of households into quintiles by net income per standard person,² it was found that expenditure in the upper quintile was 3.4 times higher than that of the lowest quintile (NIS 603 versus NIS 176, on a monthly average, respectively).

2 Private Expenditure per Student for Education Services, by Household's Income Quintile, NIS, 2014



- (1) Includes compulsory payment and optional payment.
- (2) Includes expenditure for classes, private lessons and tests.
- (3) Includes expenditure on purchases of books and notebooks, stationery, computer and related equipment, Internet services and library subscriptions.

² The total current financial income of a household, after deduction of compulsory payments; and the household's total income from services provided as a result of ownership of a dwelling or vehicle; divided by the number of standard persons in the household.

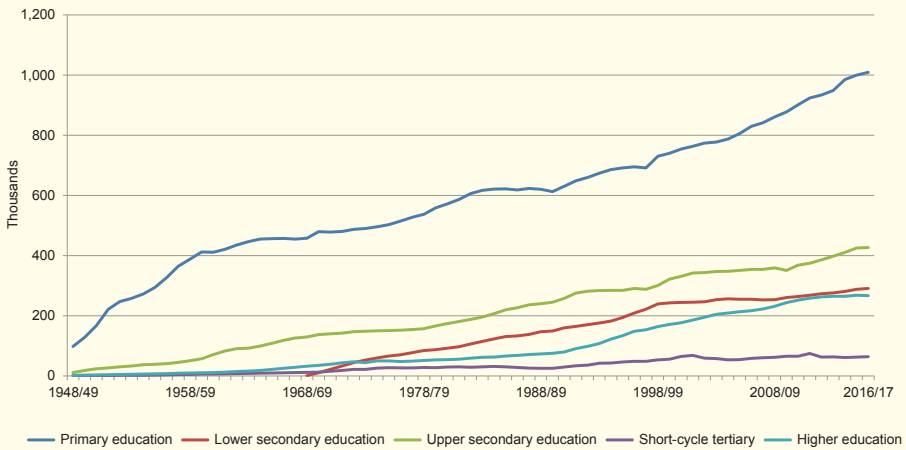
The Education System

In the 2016/17 school year, 1.7 million students studied in primary and post-primary schools, and 152,900 teaching staff taught in them. In addition, there were 830,000 children aged 0-7 in municipal and public kindergartens (incl. day-care centers) and private kindergartens, and there were 17,350 kindergarten teachers in public and private kindergartens.

The higher education system included 314,500 students in 2017/18. In short-cycle tertiary education, there were 63,800 students in 2016/17.

The following diagram shows the growth in the number of students at all levels of education throughout the years of existence of the State of Israel, from 1948 to 2017.

3 Students in the Education System, by Level of Education, 1948/49-2016/17



Primary Education

In the 2016/17 school year, 1 million students attended primary schools (75.6% in Hebrew education and 24.4% in Arab education). Between 1999/00 and 2016/17, there was an increasing trend in the number of students in both Hebrew and Arab education (36.6% and 35.6%, respectively). However, in recent years (2014-2017) the number of students in Arab education decreased by 6.1%, while the number of students in Hebrew education increased by 9.1%.

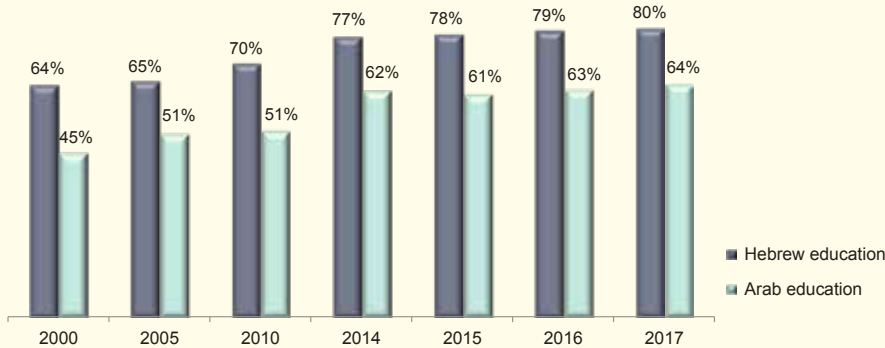
Secondary Education

In 2016/17, 707,700 students studied in secondary schools (74.2% in Hebrew education and 25.8% in Arab education). Between 2000 and 2017, the number of students in Hebrew education rose moderately (12.4%). In contrast, in these years the number of students in Arab education almost doubled (an increase of 87.5%).

Entitled to a Matriculation Certificate

In 2017, 75.6% of matriculation examinees³ were entitled to a certificate. The percentage of those entitled to a matriculation certificate in Hebrew education (79.5%) was much higher than the percentage in Arab education (64.2%). In Hebrew education, the percentage of those entitled to matriculation in the ultra-Orthodox supervision (36.3%) was lower than the percentage in the other two streams (83.1% in the State supervision and 83.7% in State-Religious supervision).

4 Percentage of Students Entitled to a Matriculation Certificate Out of All Examinees in Selected Years - Hebrew Education and Arab Education



³ The Ministry of Education awards a matriculation certificate to students who passed the matriculation examinations - the purpose of which is to evaluate the knowledge of high school graduates, as well as external examinees in various subjects of study. Entitlement to a matriculation certificate is usually a prerequisite for admission to academic studies.

Teaching Staff⁴

In 2018 the number of teaching staff in the education system was about 175,000, compared with about 170,000 in 2017 (an increase of 3%). During the years 2011-2018, about 36,000 teaching staff were added to the system (an average annual growth rate of 3.3%).

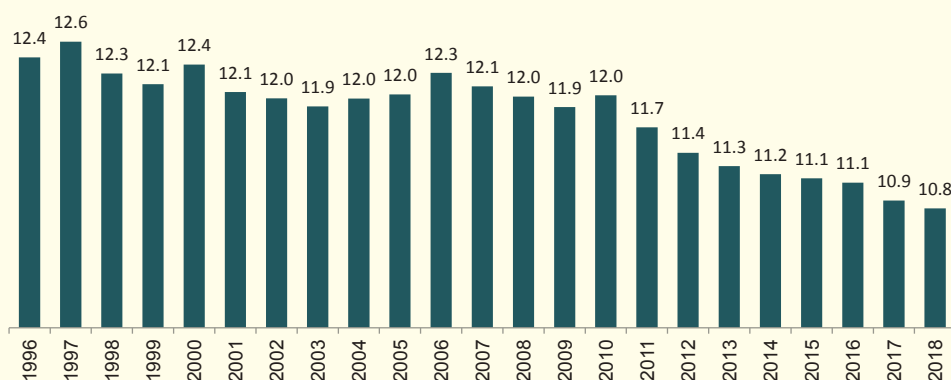
The number of weekly work hours of teaching staff in 2018 was about 5.2 million hours, compared with 5.1 million hours in 2017 (an increase of 2.2%). Over the course of the years 2011-2018, more than 1.6 million work hours were added to the system (an average annual growth rate of 5.6%).

Over the last decade, two comprehensive wage reforms⁵ have been implemented for teaching staff in Israel's education system. These reforms increased the salaries of teaching staff on the one hand, and on the other, increased the scope of their jobs.

Average Students per Teacher and Full Time Equivalent Jobs

During the period 1996-2018, the rate of increase in the number of teachers in the Israeli education system was higher than the rate of increase in the number of students. As a result, the average number of students per teacher decreased over the years from 12.4 students per teacher in 1996 to 10.8 students per teacher in 2018, a decrease of 13%.

5 Average Number of Students per Teacher, 1996-2018



The ratio between the number of students and teaching jobs in primary education in 2015 was 15 students per teaching job, similar to the OECD average, and 11 students per teaching job in secondary education, compared with 13 in the OECD.⁶

4 Teaching staff in pre-primary, primary, lower and upper secondary education, not including kindergarten teachers in recognized non-official education and teachers in exempt institutions ("Talmud Torah").

5 The "Ofek Hadash" reform in 2008, for teaching staff in pre-primary education, primary education and lower secondary schools, and the 2012 "Oz Litmurah" reform for teaching staff in upper secondary schools.

6 OECD (2017) Education at a Glance 2017: OECD Indicators, OECD Publishing, Paris.

Short-Cycle Tertiary Education

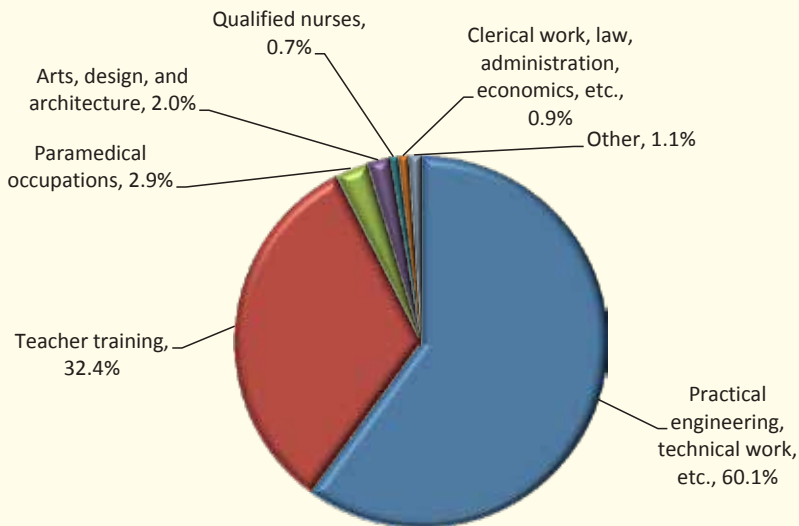
Short-cycle tertiary education usually lasts about two years, for full-time study. The admission requirements are a matriculation certificate or a full secondary education (12 years of schooling or 11 years of schooling plus a preparatory course). These studies focus on practical technical or professional skills and are designed to enable direct integration into the labour market.

There were 63,800 students in 2017 in short-cycle tertiary (non-academic) education.

Of the students who studied in short-cycle tertiary education in 2016/17, 92.5% were students of teaching⁷ or engineering, technicians and the like.

Of the students in short-cycle tertiary education in this year, 49.2% were women. In most fields of study, the proportion of women was more than 70%: 70.2% of students in the field of qualified nurses, 87.1% of the students for teacher training, and 82.8% of the students in paramedical studies. In contrast, in the field of engineering, technicians and the like, only 26.1% of the students were women.

6 Students in Short-Cycle Tertiary Education (Non-Academic) by Field of Study, 2016/17



⁷ It should be noted that most of the students in education and teacher training, study towards an academic degree. In 2016/17, 50,350 students in universities, academic colleges, and academic colleges of education studied towards a first, second or third degree, or a diploma, in education and teacher training, compared with 20,660 students in short-cycle tertiary education.

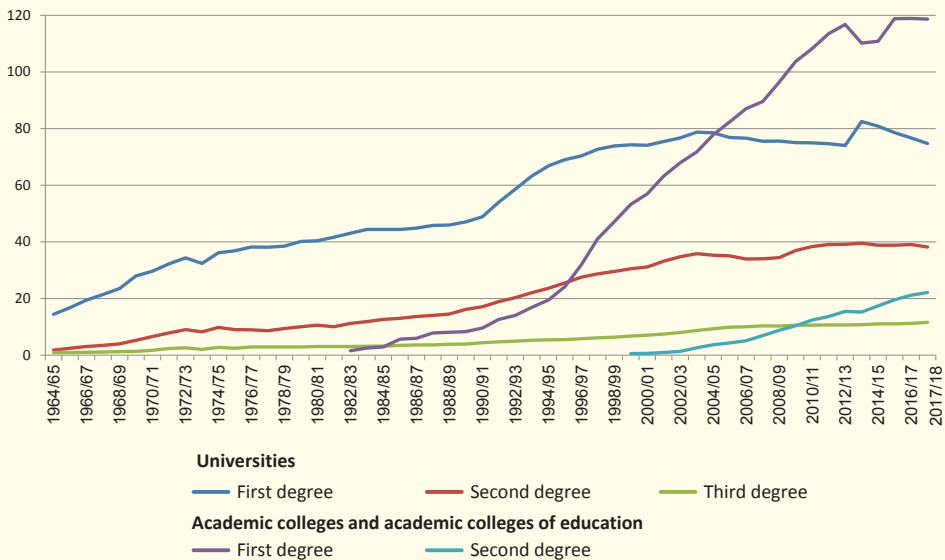
Higher Education

In 1950/51, there were 2,833 students enrolled in two academic institutions that existed in Israel at that time - the Hebrew University and the Hebrew Technion - Israel Institute of Technology. In 2017/18, there were 314,500 students (including 47,700 students who studied in the Open University) in 63 institutions of higher education, of which 9 are universities, 32 are academic colleges, and 21 are academic colleges of education.

In the 1990s and in the first decade of the 2000s, many academic colleges were added, and since then there has been a 14.5 fold increase in the number of students studying in them (including academic colleges of education). Their number rose from about 9,600 at the beginning of the 1990s to 141,000 in 2017/18.

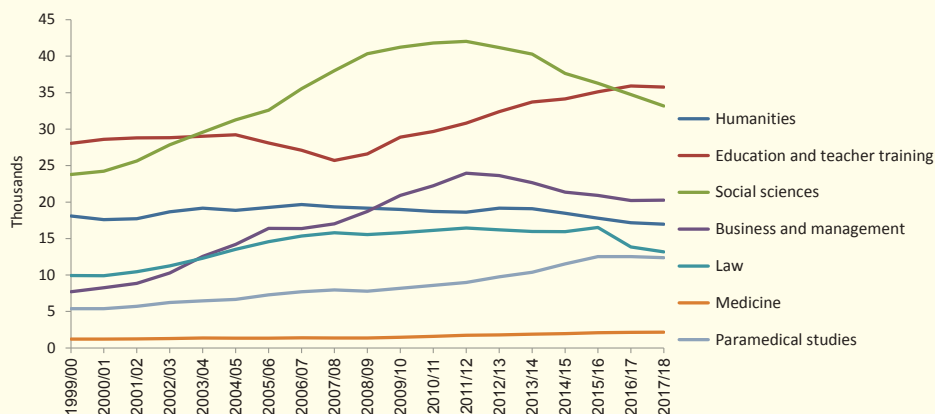
Of the 266,800 students who studied in universities, academic colleges, and academic colleges of education in 2017/18 (excluding students who studied in the Open University): 72.5% (193,400) studied towards a first degree (B.A.), 22.6% (60,300) - towards a second degree (M.A.), and 4.3% (11,600) - towards a third degree (Ph.D.). The rest studied towards a diploma (such as a teaching certificate, a diploma in translation).

7 Students in Universities, Academic Colleges and Academic Colleges of Education by Degree, 1964/65-2017/18



In the years 1999/00–2017/18, the number of first degree students in all fields of study increased, except for the Humanities, in which the number of students decreased by 6%. There was an increase of 39% in the number of students in the Social Sciences. In Business and Management Sciences, as well as Paramedical Studies, there was a significant increase in the number of students (163% and 130%, respectively).

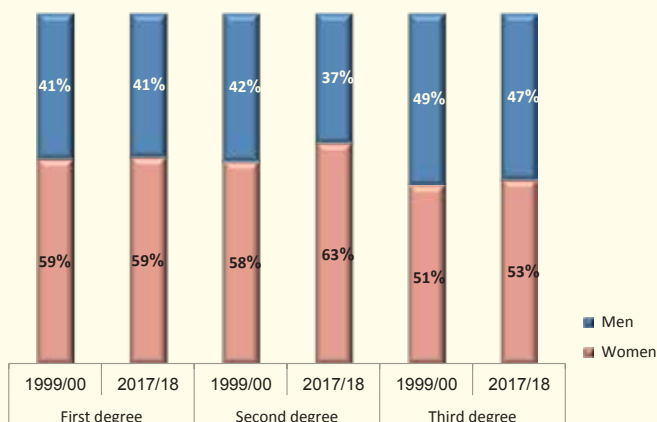
8 First Degree Students Enrolled in Institutions of Higher Education by Field of Study, 1999/00-2017/18



Women in Higher Education

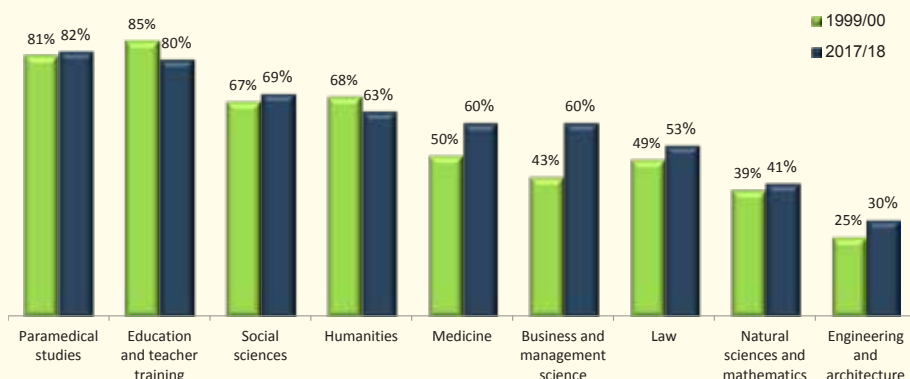
Women were the majority of students in all degrees, both in 1999/00 as well as 2017/18. There were 1.4 female students for each male student for a first degree, and this phenomenon was stable over the years. In studies for a second degree, there was an increase in their relative share (from 58% in 1999/00 to 62.7% in 2017/18). The number of women students studying towards a second degree was 60% higher than the number of men; there were 1.6 women studying towards a second degree for every man.

9 Percentage of Students by Sex and Degree in 1999/00 and 2017/18



Large differences between men and women were found in the fields studied for a first degree. In some fields of study, such as Paramedical Studies, women were the majority, while in other fields such as Engineering and Architecture they were in the minority. However, in the following diagram one can see that in 1999/00 and 2017/18 there were changes in the fields of study that women chose to study. In the fields of Business and Management Sciences, Engineering and Architecture, Social Sciences, Law, Natural Sciences and Mathematics there was an increase in the percentage of women. On the other hand, there was a decrease in the fields of Education and Teacher Training and the Humanities.

10 Percentage of Women Among First Degree Students by Field of Study in 1999/00 and 2017/18



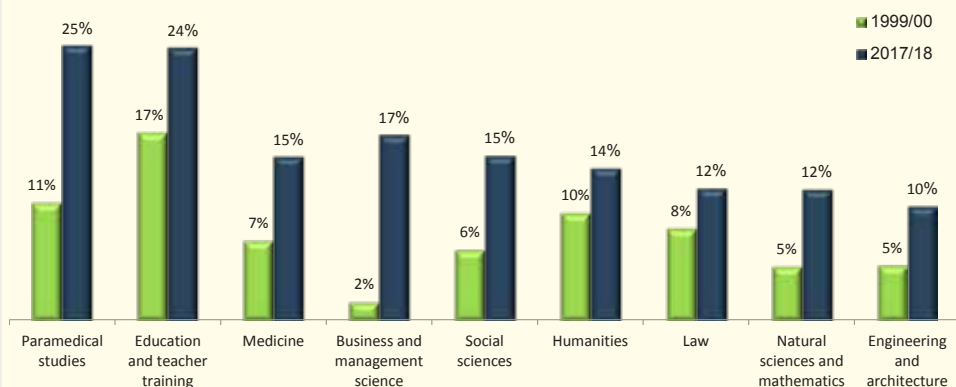
Arab Students

The number of Arab students increased from 14,000 in 1999/00 to 42,900 in 2017/18, three times higher. The relative share of Arab students in the total number of students in higher education almost doubled, from 8.3% in 1999/00 to 16% in 2017/18.

The proportion of Arab students is higher than that of Jewish and Other⁸ students in certain fields, such as Paramedical Studies and Education and Teacher Training, and lower in other fields, such as Engineering and Natural Sciences.

The following diagram shows that the proportion of Arab students out of all students increased in all fields. A notable increase in their share occurred in the following fields of study: Business and Management Sciences, Medicine, Paramedical Studies, and Social Sciences.

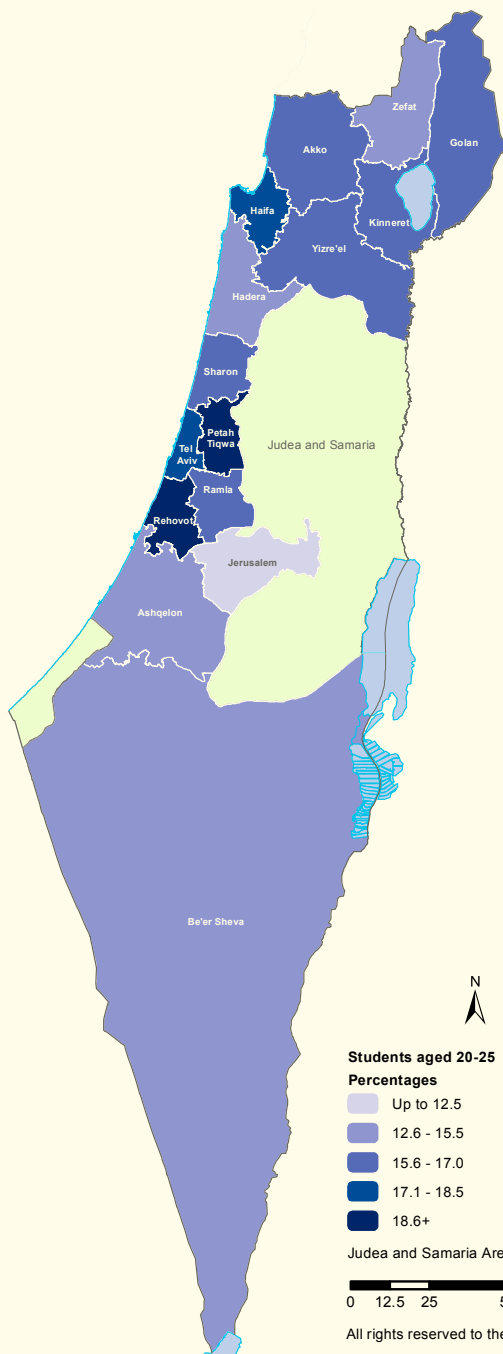
11 Percentage of Arabs out of Total Students by Field of Study in 1999/00 and 2017/18



In 2016/17, the percentage of students studying for a degree among all persons aged 20-25 was 16.0%. However, there were significant differences between different regions in Israel: in the Jerusalem Sub-District, the percentage of students was 10.2%, whereas in the Petah Tiqwa Sub-District, the percentage was 20.9% (see map).

⁸ Others are non-Arab Christians, members of other religions, and persons not classified by religion in the Population Registry.

12 Percentage of Students Studying Towards an Academic Degree Among All Persons Aged 20-25, by Sub-District of Residence, 2016/17



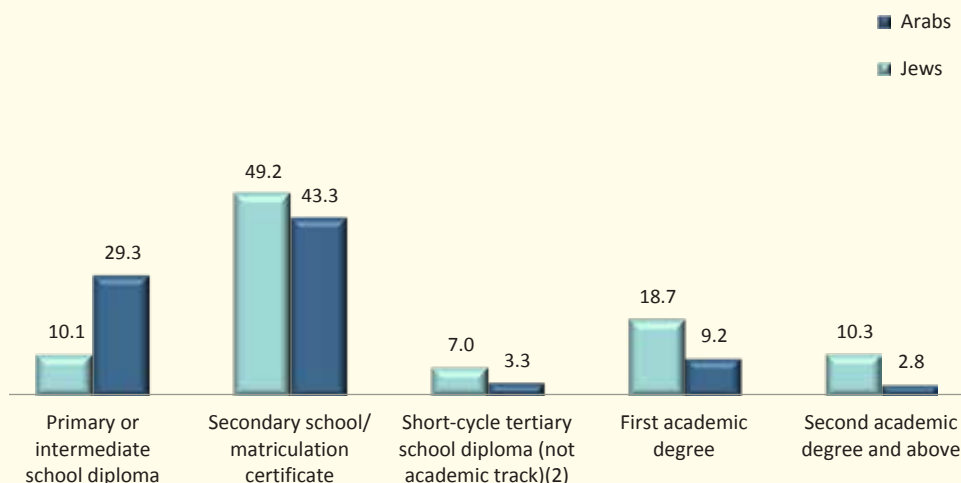
Level of Education, Skills and Occupation of the Population

Data from the Education Register

The Education Register is based on administrative data received from various sources, such as the Ministry of Education, the Ministry of Labor, Social Affairs and Social Services and institutions of higher education, on education in Israel or abroad, and includes data from surveys and personal reports of the adult population. One of the indices of education calculated in the Education Register is the "highest diploma" a person has received.

According to the data of the Education Register for 2016, the highest diploma received⁹ by 15.3% of Arabs aged 20-65 is an academic degree or short-cycle tertiary diploma, compared to 36% of the Jews.

13 Persons aged 20-65 by Highest Diploma Received, and Population Group (1), 2016, Percentages



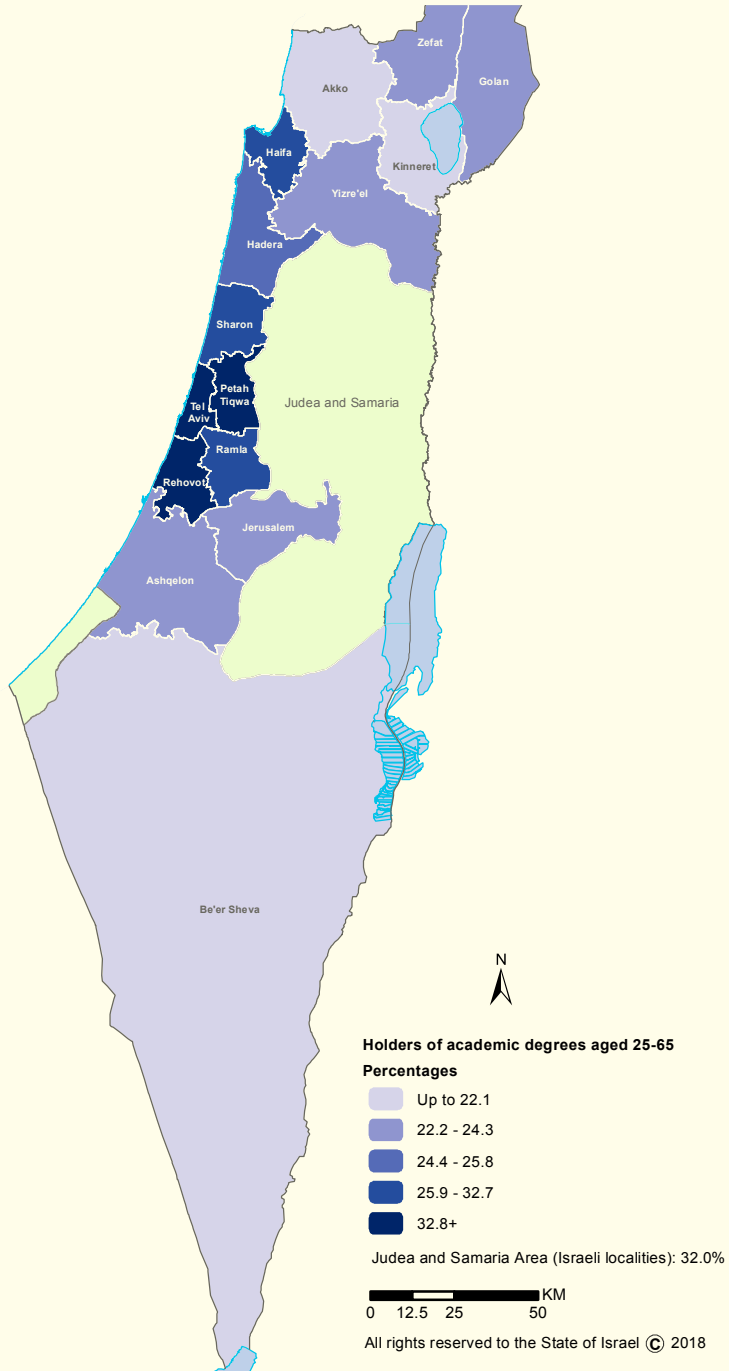
(1) There are data on 95.2% of the Jews and 87.9% of the Arabs in the Register.

(2) In the "highest diploma" index in the Education Register, a person is defined as having a short-cycle tertiary (non-academic) education if his or her studies conform to the International Standard Classification of Education (ISCED) 2011 Level 5: Full-time learning for two years at an institution that requires a successful completion of secondary school. This definition is different from the definition of the ICBS's Labour Force Survey or Population Census, which requires one year of study (without specifying the scope of studies), and without making acceptance conditional upon the successful completion of secondary school.

According to the Education Register, in 2016 the percentage of persons aged 25-65 who had an academic education in the Israeli population was 29%. The differences in the percentage of holders of academic degrees by geographical area were significant. The highest percentage was found in the Petah Tiqwa and Tel Aviv Sub-Districts - 38.3% and 35.0%, respectively. In contrast, the lowest percentage was found in the Kinneret and Be'er Sheva Sub-Districts - 21.3% in each of them.

⁹ The highest certificate a person received upon finishing studies at school or another official study programme, such as a matriculation certificate, a graduation certificate of short cycle tertiary education (a non-academic certificate), or an academic first degree. Does not include certificate for a course or in-service training, etc.

14 Percentage of Holders of Academic Degrees Aged 25-65 by Sub-District, 2016



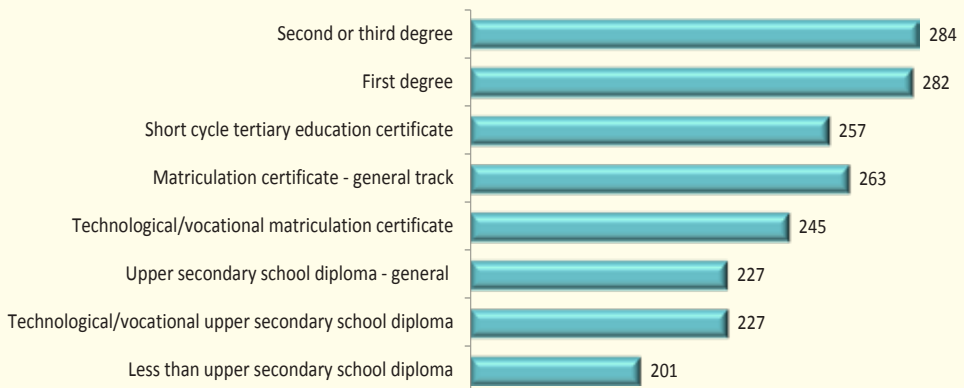
Education and Literacy

The Programme for the International Assessment of Adult Competencies (PIAAC)¹⁰ is an international survey conducted by the OECD in over 30 countries. The survey examines the levels of competency among adults (aged 16-65) in basic skills: literacy, numeracy, and problem solving in technology-rich environments. The survey is intended to directly measure the adults' levels of competency in these areas, and how they use those competencies at work and in everyday life.

Each domain of skills was measured on a continuous scale of scores ranging from 0 to 500. Israel is below the OECD average on each of the three domains measured in the survey. The average score in Israel in literacy was 255 points, lower than the OECD average of 268 points. The average score in Israel in numeracy was 251 points, lower than the OECD average of 263 points. The percentage of the population in Israel that was at the upper two levels on problem solving in technology-rich environments (Levels 2-3) was lower than the OECD average, which was 31%.

Educational attainment (as measured by the highest qualification a person received) is closely related to each of the measured competencies. Thus, for example, literacy increases as educational level increases. The average literacy score for persons at a low educational level (lower than an upper secondary school diploma) was 201, compared to 284 among persons at a high educational level (second or third degree).

15 Literacy by Average Score and Highest Educational Qualification, 2014-2015 Ages 25-65



The educational level of the respondents' parents was also positively related to the assessed competencies. The average score in literacy among respondents whose parents were at low levels of education was statistically significantly lower than among those whose parents had tertiary education (228 and 280, respectively). This was true among Jews, Arabs, and in the OECD countries.

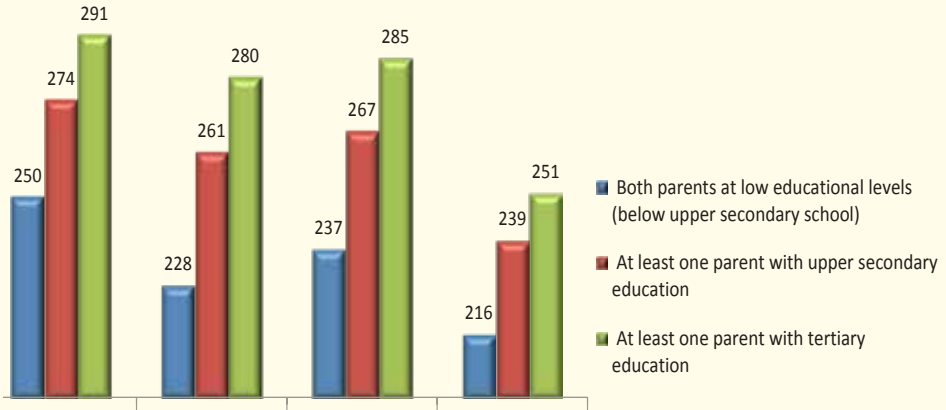
¹⁰ The Survey of Adult Competencies was designed to help governments examine the impact of these skills on various economic and social aspects: to evaluate educational and vocational training systems, as well as identifying where gaps in important skills can be narrowed. Israel participated in the survey for the first time in 2014-2015. It was conducted in Hebrew and Arabic, with an option to respond in Russian. In Israel, the initiative was carried out via the Israel Central Bureau of Statistics (ICBS) in full cooperation with the National Authority for Educational Measurement and Evaluation (RAMA). Additional partners who supported the research in Israel were the Ministry of Economy, the Ministry of Education, the Bank of Israel, the Council for Higher Education, and the Finance Ministry.

In Israel, the average literacy score of respondents who had at least one parent with short-cycle tertiary or higher education was lower than the OECD average. However, the largest gap between Israel and the OECD average is in comparing the reading literacy scores of those with two parents who do not have upper-secondary education.

Among Arabs, the score attained by a person for whom at least one parent had tertiary education was similar to the OECD average score for a person with both parents at a low level of education (251 and 255, respectively).

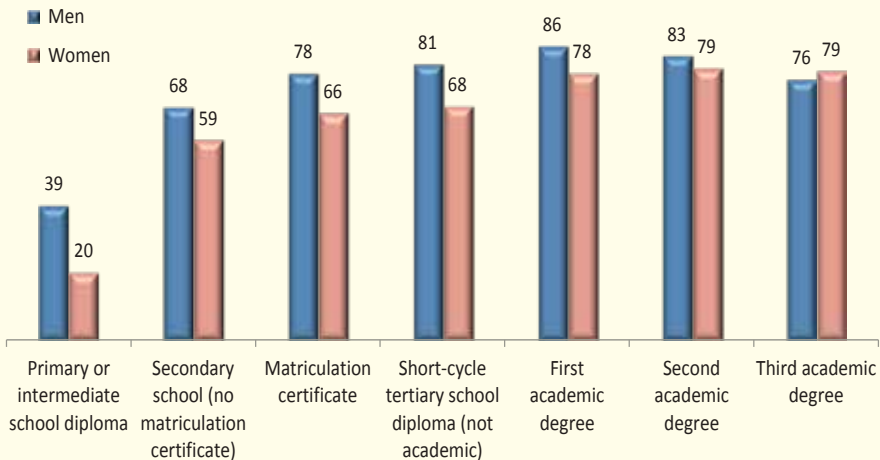
16 Literacy by Population Group and Parent's Educational Level, 2014-2015

Ages 25-65



The following diagram shows the positive correlation between the rate of participation in the labour force and the level of education of the population, as measured by the highest diploma received. However, the percentage of women participating in the labour force is lower than the percentage of men even when the level of education is the same, except for holders of third academic degree. Thus, the participation rate of women with a short-cycle tertiary graduation diploma (68%) is identical to the rate of participation in the labour force of men with an upper-secondary school diploma (which is not a matriculation certificate).

17 Percentage of Persons Aged 15 and Over in the Labour Force, by Highest Diploma Received and Sex, 2017



Source: Labour Force Survey



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