The Shoresh Handbook 2021

A Snapshot of Israel's Education System

Dan Ben-David



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Table of Contents

Israeli children's knowledge level in core subjects	1
The level of knowledge of Israeli children is at the bottom of the developed world – even without the haredim	2
Arab Israelis' level of knowledge in core fields is below 9 of the 10 Muslim countries that participated in the most recent PISA exam	3
About half of Israel's children receive a third world education – and they belong to the fastest growing sections of the country's population	4
Education gaps in Israel are the highest in the developed world – even without the haredim	5
A third of Israel's non-haredi pupils fail in the core subjects	6
The share of Israeli pupils who excel scholastically is lower than in most developed countries	7
The functioning of the education system	8
The more religious the schools, the lower the classroom congestion	9
Israel's classrooms are congested – even though the country has enough teachers	10
More instruction hours in Israel – but lower scholastic achievements	11
Israeli teachers' comparative levels of knowledge and compensation	12
The average knowledge level of most Israeli students who major in education is very low	13
The knowledge levels of Israeli teachers is among the lowest in the developed world	14
Average teachers' salaries are higher than the average salary in the economy	15
Teachers' salaries in Israel are higher than average teachers' salary in the OECD	16

Funding the education system	17
National education expenditure per pupil has risen since the early 1990s	18
The weakest pupils receive more – especially if they are Jewish	19
Household education expenditures in Israel surpass the OECD average	20
Israel seemingly spends more on education than any other developed country	21
Israeli education expenditure is high due to the high share if pupils in the population	22
National primary education expenditure in Israel is higher than in most OECD countries	23
National secondary education expenditure in Israel is higher than in most OECD countries	24
When demographics, education and Israel's future are merged together	25
Israeli families average one full child more than the OECD country in second place	26
Israel is enroute to becoming one of the world's most densely populated countries	27
The share of the elderly in Israel's population is skyrocketing	28
The haredi share of the Israeli population is doubling from generation to generation	29
Apart from the haredim, Israel's Jewish population is seemingly becoming less religious over time. This finding is misleading.	30
The primary contributors to Israel's exponential population growth are the haredim	31
In just two generations, half of Israel's children will be haredim	32
Israel needs to choose which group of countries it wants to belong to – 1st or 3rd world	33
Summary	34
References	35
Shoresh supporters	36

Table of Contents

The Shoresh Handbook 2021

Israeli children's knowledge level in core subjects

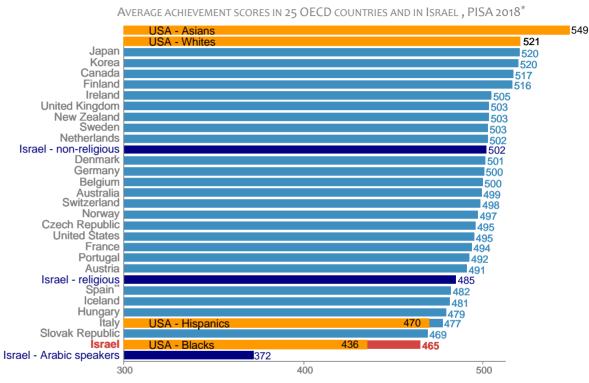
Israeli children's average level of knowledge in mathematics, science and reading is below that of every developed country – with Arab Israelis falling below 90% of the Muslim countries examined in the most recent PISA test. Educational gaps in primary education within Israel are much higher than in any other developed country. In addition, the share of pupils failing – those who do not reach the minimum level of knowledge set by the OECD – in Israel is considerably higher than in every other developed country. Finally, the share of Israeli pupils who excel is below that of most developed countries. The actual state of Israel's education system is even more critical than the formal statistics indicate because the results cited above do not include most haredi (ultra-Orthodox Jewish) children, who do not study the material and do not participate in exams – behavior that is forbidden elsewhere in the developed world.

The level of knowledge of Israeli children is at the bottom of the developed world – even without the haredim

Israeli pupils' knowledge of basic fields - mathematics, science and reading, the basic tools that they'll need as adults in the global competitive market – is below that of every other developed country. Most haredim (nearly all of the boys and many of the girls) don't even study the material and do not participate in exams. Had all of Israel's children participated, the country's average score would have been even lower. As it is, nonreligious Jewish schools rank below a third of the developed countries while the religious schools fall below 80% of those countries. Arab Israelis score below many third world countries.

When the US average is similarly divided into four major ethnic groups, Asians and whites score above every developed country. Far below are the Hispanics, who nonetheless score above Israel. At the bottom of the US ranking are blacks, who score higher than Arab Israelis – who themselves know more than most haredim who do even not study the material.

AVERAGE LEVEL OF EDUCATION IN DEVELOPED WORLD



^{*} National average in math, science and reading exams. Israeli examinees did not include haredi boys.

Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University

Data: PISA and Israel's National Authority for Educational Measurement and Evaluation

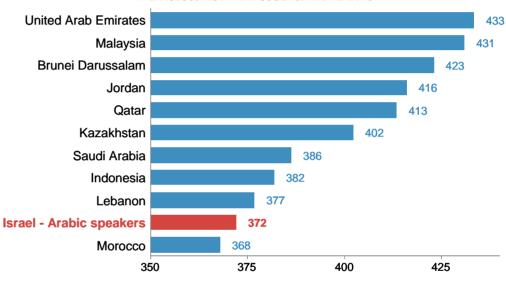
^{**} Spain participated only in math and science exams.

Arab Israelis' level of knowledge in core subjects is below 9 of the 10 Muslim countries that participated in the most recent PISA exam

The average score of Arab Israelis in the basic subjects is not just far below the entire developed world. They score lower than all but one of the Muslim countries that participated in the most recent PISA test.

COMPARISON OF ARAB-ISRAELIS TO EVERY PREDOMINANTLY MUSLIM COUNTRY PARTICIPATING IN PISA 2018

AVERAGE SCORES IN MATH, SCIENCE AND READING



Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University

Data: PISA and Israel's National Authority for Educational Measurement and Evaluation

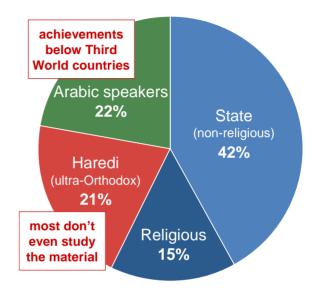
About half of Israel's children receive a third world education – and they belong to the fastest growing sections of the country's population

Haredi pupils comprise more than one-fifth of Israel's first graders today. The same applies to Arab Israelis. These two groups alone constitute 43% of all first graders. In addition to them, the education provided to pupils in non-religious and religious schools who live in Israel's social and geographical peripheries is often inadequate as well.

Roughly speaking, about half of Israeli children receive a third-world level of education. These children also tend to belong to Israel's fastest growing population groups – which turns the national education picture into a ticking time bomb.

Children with a third world education will not be able to maintain a first world economy – without which there will be no first world health, welfare and defense systems. The absence of a first world ability to defend itself in the world's most violent region will jeopardize the State of Israel's very existence.

DISTRIBUTION OF PUPILS IN 1ST GRADE, 2020



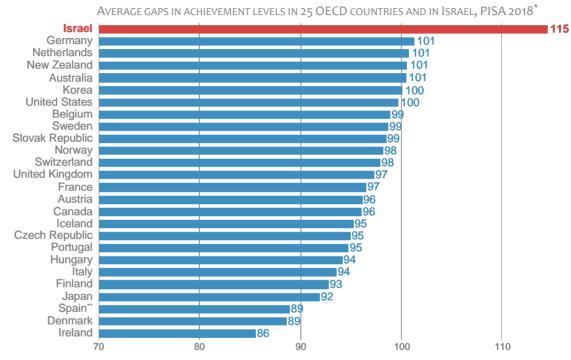
Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University Data: Central Bureau of Statistics

Education gaps in Israel are the highest in the developed world – even without the haredim

The knowledge gaps among Israel's children in the core fields are unparalleled in the developed world. In actual fact, education gaps within Israel are even greater than those shown in the figure because there is a large population group in Israel – the haredim – that is neither required to study the material nor does it participate in any national exams that measure their level of knowledge in the core subjects.

When these are the gaps in a country's springboard to the labor market, the resultant picture does not bode well for the future economic inequality that Israel will be facing.

EDUCATIONAL INEQUALITY IN DEVELOPED WORLD, PISA 2015



^{*} National average standard deviation in math, science and reading exams. Israeli examinees did not include haredi boys.

Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University

Data: PISA

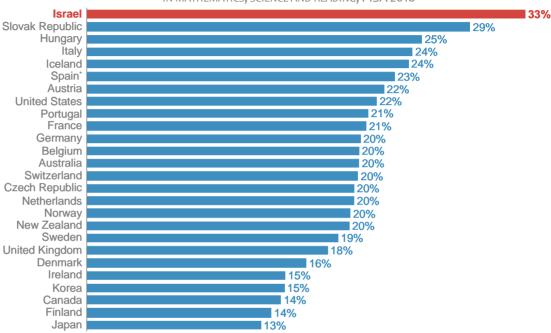
^{**} Spain participated only in math and science exams.

A third of Israel's non-haredi pupils fail in the core subjects

A nation's weakest pupils have the highest probability of living a life of poverty as adults. In this realm, Israel is in a league of its own in imparting a poor education to its non-haredi pupils. One can only imagine how much more severe this picture of the future actually is, if it would include the haredim.

SHARE OF PUPILS FAILING IN CORE SUBJECTS

AVERAGE PERCENT OF PUPILS SCORING AT OR BELOW LEVEL 1
IN MATHEMATICS, SCIENCE AND READING, PISA 2018*



^{*} Israeli examinees did not include haredi boys. Spain participated only in math and science exams.

Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University Data: PISA

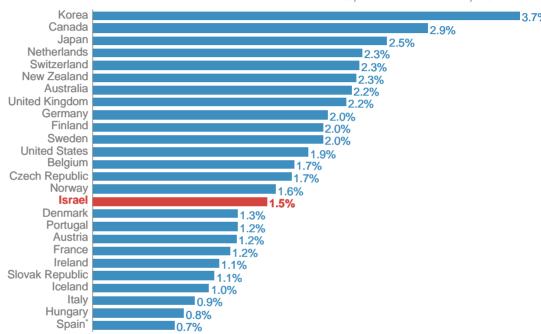
The share of Israeli pupils who excel scholastically is lower than in most developed countries

Israel's education failures are not just concentrated among its weakest pupils. Not only is Israel's general level of education at the bottom of the developed world, the gaps between its children and its proportion of weak pupils the highest in the developed world. The percentage of Israeli pupils who excel is below the share in most developed countries.

In fact, the actual share of pupils who excel in Israel is even lower than the 1.5% that appears in the figure. This is because most of the haredim did not participate in the exam. Had they done so, this would have increased the denominator (which would then include Israel's entire pupil population, as is the case in the other countries) while barely affecting the numerator – and the de facto excellence share would be even lower.

SHARE OF PUPILS AT THE HIGHEST QUALITATIVE LEVEL

AVERAGE PERCENT OF PUPILS SCORING AT LEVEL 6 IN MATHEMATICS, SCIENCE AND READING*, PISA 2018



^{*} Israeli examinees did not include haredi boys. Spain participated only in math and science exams.

Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University

The functioning of the education system

Among the primary reasons for Israeli pupils' very low level of knowledge is inefficient use of the resources available to the education system. On the one hand, the number of pupils in a class is very high compared to the OECD average. On the other hand, the number of pupils per teacher (full-time equivalents) is similar to the OECD average in primary schools and even below the OECD average in secondary schools. In addition, there is no shortage of classroom time for Israeli pupils. The number of instruction hours in Israel is greater than in most OECD countries, though the knowledge of children in the basic subjects in each of these other countries is higher.

Despite the above, Israel's education system has a minimal desire to measure and evaluate its own performance, despite the establishment of an authority purportedly dedicated to do just that. For example, those who want to know the level of knowledge of Israeli children must rely on international sources because the matriculation exams that have been given in Israel for decades are neither calibrated over time, nor even comparable between different places in the country at a given point in time. Consequently, it's not possible to compare an average score in a particular field in one year to a score in that same field in a different year.

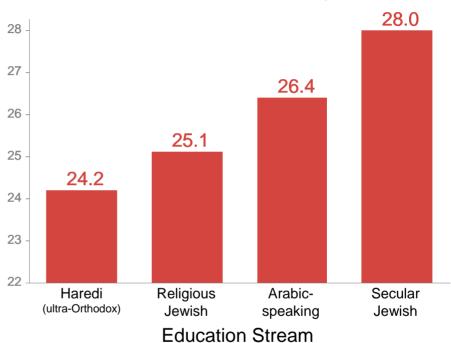
The more religious the schools, the lower the classroom congestion

The gaps between Israel's various streams of education are not limited to differences in curriculum or to the disparity in pupils' levels of knowledge. The number of pupils in the haredi schools – which do not require a full core curriculum – is the lowest (24.2). They are followed by the country's religious schools, with 25.1 pupils per class.

Although Arab Israelis level of knowledge in the core subjects is below that of many third world countries, their classrooms have a greater number of pupils (26.4) than the religious and haredi Jewish streams.

AVERAGE CLASS SIZE - PRIMARY SCHOOLS

NUMBER OF PUPILS PER CLASS, 2018-2019



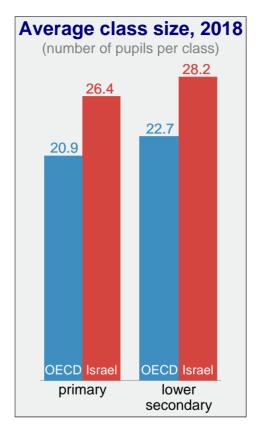
Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University

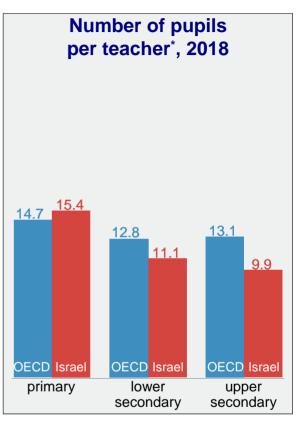
Data: Central Bureau of Statistics

Israel's classrooms are congested – even though the country has enough teachers

One common – though not necessarily correct – explanation for the Israeli education system's difficulty in providing a good education to the country's children is the high classroom congestion. While there is no professional research consensus about the possible negative contribution of classroom congestion on academic achievement, the more relevant question is why are all the classrooms in Israel so crowded compared to the OECD average?

After all, there is no shortage of teachers in Israel. The number of pupils per teacher (full-time equivalents) in primary schools is almost the same as the OECD average. In upper secondary schools, the number of pupils per teacher is even lower than the OECD average. In other words, Israel funds enough teachers for the classroom density to be similar to the OECD average – and despite this, the classrooms in the country are much more crowded.





Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University Data: OECD

^{*} According to full-time equivalents.

More instruction hours in Israel – but lower scholastic achievements

The low level of knowledge in core subjects that Israeli children exhibit is not due to a lack of class time. The number of school days in the country is much greater than the number in all other OECD countries. On the other hand, it could be argued that the study days are shorter in Israel and therefore the comparison should be made using annual teaching hours instead of days.

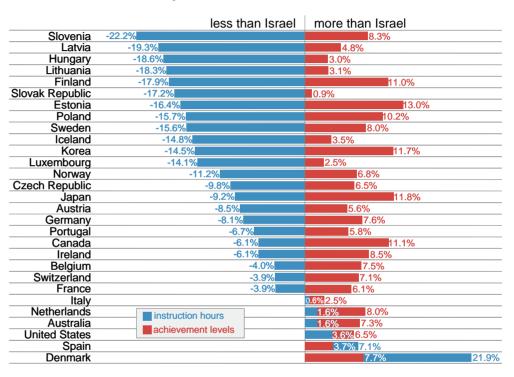
The number of teaching hours in the vast majority of developed countries is lower – sometimes considerably so – than the number of teaching hours in Israel. However, the achievements of pupils in the core subjects in each of these countries are higher than the achievements of Israeli children.

In general, there is no relationship between the number of instruction hours and the level of achievement across all countries – as can be clearly seen in the figure. Some countries provide fewer instruction hours while attaining higher scholastic achievements, and vice versa.

In the final analysis, pupils' levels of knowledge are determined by the level of the content that they are taught, and by how thoroughly the teachers understand that material and how well they teach it.

Instruction Hours and Achievement*

29 OECD COUNTRIES RELATIVE TO ISRAEL



^{*} Cumulative number of compulsory instruction hours in lower secondary schools in 2019 (US data for 2018) and average achievement levels in math, science and reading in PISA 2018.

Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University

Israeli teachers' comparative levels of knowledge and compensation

It is important to emphasize that there are many teachers in Israel who could have succeeded in any field they wanted, but chose to teach out of a sense of mission. However, these teachers are the exception rather than the rule. Knowledge levels of undergraduate Israeli education students' are very low – in both domestic comparisons and in international comparisons with other developed countries. Contrary to Israeli conventional wisdom, the country's teachers' salaries are higher than the national average salary, and are also higher than average teachers' salaries in developed countries.

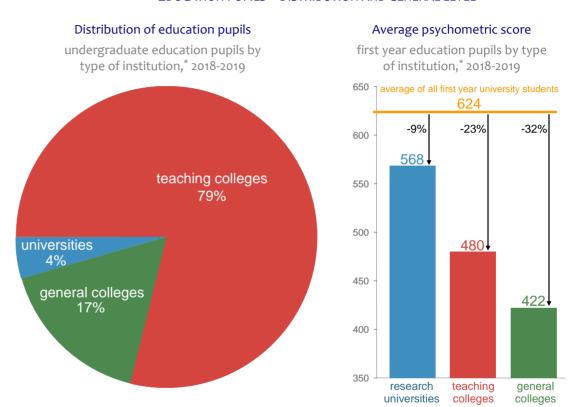
The average knowledge level of most Israeli students who major in education is very low

More than three-quarters of Israelis who major in education and teacher training study in teaching colleges. Roughly one-sixth study in general colleges and 4% are students in the research universities.

The average psychometric score (serving a similar purpose in Israel as SAT scores in the US) of education students at the universities is 9% lower than the average score of all university students. The situation among college students is even more problematic, with an average psychometric score that is nearly one quarter lower than the average for university students. At the bottom are the education students in the general colleges, with an average grade that is about one-third lower than the grade of university students.

Israel regards brainpower as its primary natural resource. Its high-tech sector – nearly the only economic sector that's thriving economically in the global arena – does not have nearly the number of workers with university-level educations that it needs. How can teachers who could not even get accepted to universities themselves educate children at a level that could bring them there?

EDUCATION PUPILS - DISTRIBUTION AND GENERAL LEVEL



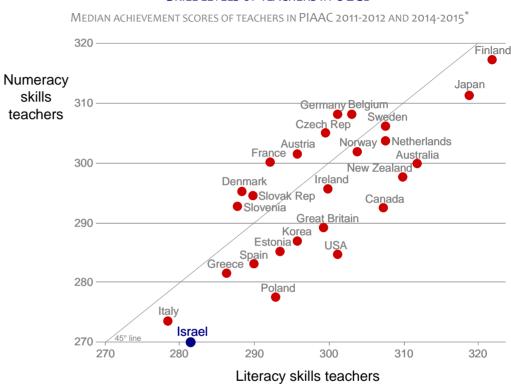
^{*} Undergraduates in education and teacher training

Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University Data: Central Bureau of Statistics

The knowledge levels of Israeli teachers is among the lowest in the developed world

Countries with outstanding teachers in one field tend to be countries with outstanding teachers in other fields as well – and vice versa. PIAAC tests, which examine basic knowledge among 16-64 year olds, show that Israeli literacy skills teachers' levels of knowledge are close to the bottom of the developed world while the knowledge level of its mathematics teachers is the lowest among developed countries.

SKILL LEVELS OF TEACHERS IN OECD



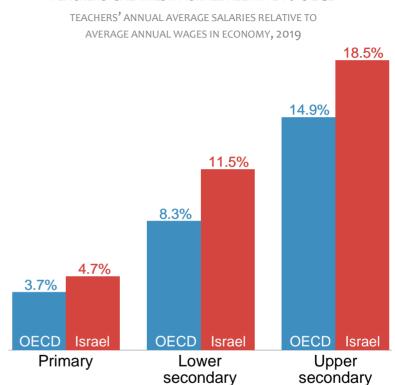
^{*} Excluding Chile and Turkey

Source: Hanushek, Piopiunik and Wiederhold, (2018)

Average teachers' salaries are higher than the average salary in the economy

The average salary of teachers is higher than the average salary in the overall economy. The gap rises with the teaching level – a phenomenon that also exists in OECD countries. However, the gap between Israeli teachers and the average wage in the country's economy is substantially higher than the average gaps in the OECD.

TEACHERS' SALARIES IN ISRAEL RELATIVE TO OECD



Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University Data: OECD

Teachers' salaries in Israel are higher than average teachers' salary in the OECD

The average monthly salary of Israeli teachers is low compared to the average OECD monthly salary. But Israeli living standards are also lower than in most developed countries and there's no reason to expect teachers' salaries to behave differently from the rest of the population in Israel.

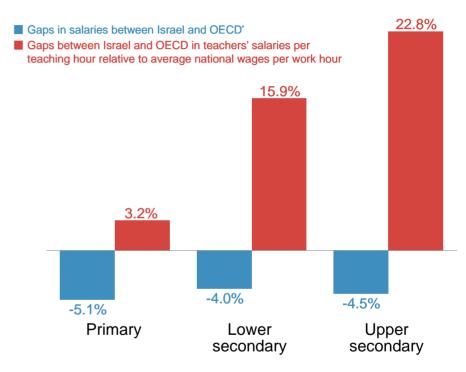
Furthermore, the compensation comparison should not only focus on what the nation pays, but also on what it receives in terms of work hours. While it's difficult to accurately estimate the actual number of teachers' work hours – which include lesson preparations, grading, etc. – their total teaching hours can be measured. Assuming that the ratio of total work hours to total teaching hours is similar across countries, wages can then be calculated per teaching hour and compared.

In this context, it's also necessary to account for inequality in living standards across countries by normalizing the teachers' hourly wage by average national wages in each country. A comparison of teaching wages per instruction hour relative to average national hourly wages indicates that primary school teachers' wages are 3% higher than the average received by their counterparts in the OECD. This gap rises to 16% in junior high schools (lower secondary) and to almost a quarter more (23%) in Israeli high schools (upper secondary).

In light of their relatively low levels of knowledge and their relatively high salaries, there is an urgent need to rethink the way that Israel chooses, trains and compensates its teachers.

TEACHERS' SALARIES IN ISRAEL RELATIVE TO OECD

PERCENT GAP IN TEACHERS' AVERAGE ACTUAL SALARIES, 2019



^{*} Comparisons using purchasing power parities.

Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University Data: OECD

Funding the education system

Injection of more funds into the education system is not a substitute for dealing with its root problems. Israeli childrens' low level of knowledge, the huge knowledge gaps between them, and the very large share of children who receive a third world level education are not due to lack of resources but are primarily the outcome of systemic dysfunction and mismanagement of the education system at all levels. Even today, Israel funds more instruction hours than do most developed countries. It funds enough teachers to completely eliminate classroom congestion disparities relative to the OECD. And it pays higher average wages to teachers with lower average knowledge levels than the OECD average.

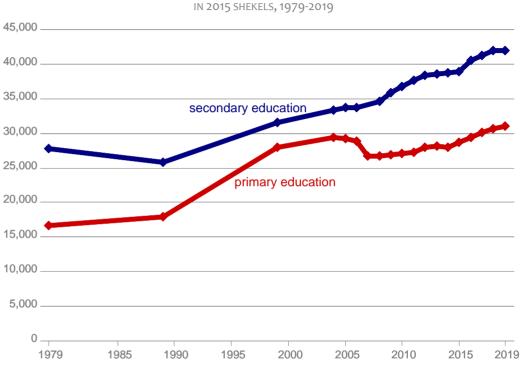
In recent years, education budgets in the country have been greatly increased. Among Jewish Israelis, the lower the socioeconomic background of the pupils, the greater the education expenditure per pupil. This policy also exists to some extent in Arab Israeli schools, but to a lesser degree at all levels. Israeli households spend more on education than the OECD average household expenditure.

It is possible that a comprehensive structural reform of the entire education system will require major changes that will necessitate extraordinary one-time expenses. But in general, the amounts that Israel spends on the education of its children are not particularly different from what is customary in developed countries.

National education expenditure per pupil has risen since the early 1990s

Israel has substantially increased its national education expenditure in recent decades. As a result, the education ministry budget has recently surpassed the defense ministry budget and has become the Israeli ministry with the largest governmental budget.

NATIONAL EDUCATION EXPENDITURES PER PUPIL



Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University

Data: Central Bureau of Statistics

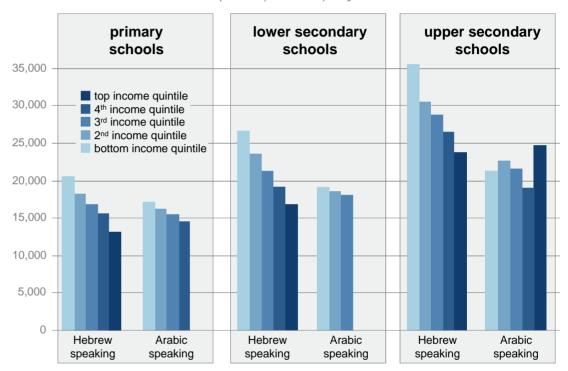
The weakest pupils receive more – especially if they are Jewish

Apart from upper secondary Arab Israeli schools, education expenditures per pupil in Israel increase as the pupil's socioeconomic background is weaker. The logic underlying this policy stems from the close connection between parental education levels – particularly the mothers' – and the scholastic achievements of their children. More educated parents are able to help their children directly. Since their incomes are also usually higher, these parents can choose to live in areas with better schools, and can more easily afford private tutors, if necessary.

Nations need good education systems to overcome the innate gaps and provide more equal opportunities for their children. Although Israel does provide supplementary budgeting, this extra expenditure differs between Jewish and Arab Israeli schools. Expenditure on Jewish pupils is higher than what Arab Israeli pupils receive. In upper secondary schools this gap is particularly pronounced.

ANNUAL EDUCATION EXPENDITURES PER PUPIL

BY INCOME QUINTILES, IN SHEKELS, 2015-2016 SCHOOL YEAR



Source: Ayal Kimhi, Shoresh Institution and Hebrew University (2021)

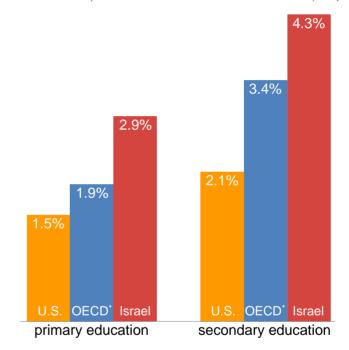
Data: Ministry of Education

Household education expenditures in Israel surpass the OECD average

Households in Israel spend much larger sums – relative to the country's standard of living – than is common in the OECD. Household expenditure is higher for secondary education than it is for primary education.

HOUSEHOLD EXPENDITURE ON EDUCATION

PER FULL-TIME EQUIVALENT PUPIL RELATIVE TO GDP PER CAPITA, 2017



^{*} OECD average excludes Israel and U.S.

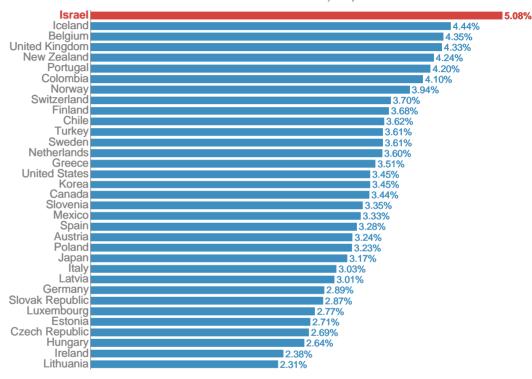
Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University Data: OECD

Israel seemingly spends more on education than any other developed country

Expenditure on education in Israel as a percentage of GDP is very high compared to all OECD countries. But this alone does not indicate that the Israeli system is particularly wasteful. After all, Israel has a relatively young population, with a high proportion of pupils who must be educated.

NATIONAL EXPENDITURE ON PRIMARY AND SECONDARY EDUCATION

AS PERCENT OF GDP, 2017*



Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University

Israeli education expenditure is high due to the high share if pupils in the population

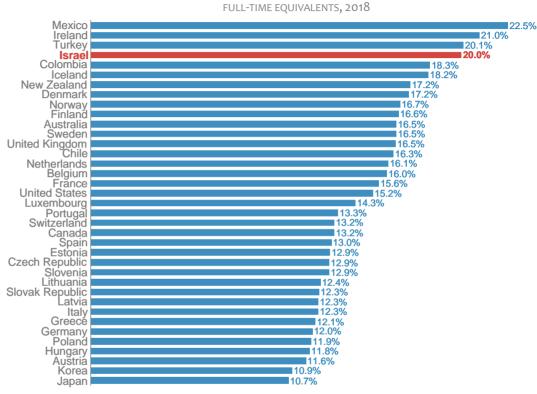
Because of Israel's relatively high percentage of pupils in the population, Israelis tend to agree that international comparisons of the share of education expenditure in GDP should be normalized by the proportion of pupils in the population.

A comparison of education expenditure per pupil across countries is also possible. Since most such expenditure is on salaries, and since there's a high correlation between education workers' wages and national living standards, expenditure per pupil needs to be normalized by the GDP per capita (commonly used to indicate living standards).

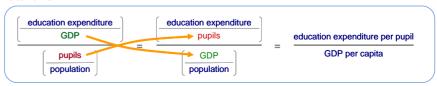
However, many of those who agree that the share of education expenditure in GDP should be normalized by the share of pupils in the population are unwilling to accept the principle that expenditure per pupil should be normalized in GDP per capita.

What they do not understand is that the normalization that they do agree on is mathematically identical to the normalization they are unwilling to accept (see box under figure). Therefore, this normalization will be applied in all international comparisons below.

SHARE OF PRIMARY AND SECONDARY SCHOOL PUPILS IN POPULATION



Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University

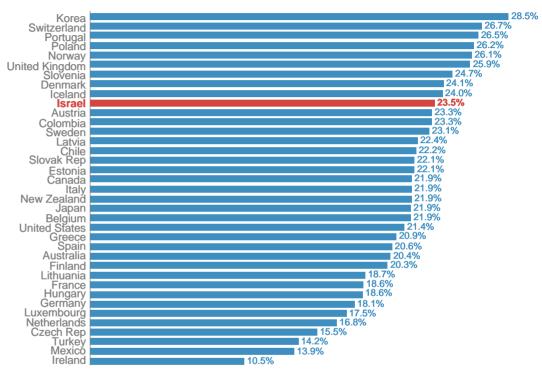


National primary education expenditure in Israel is higher than in most OECD countries

When the national education expenditure per pupil is normalized by the standard of living, it becomes clear that there is no shortage of funds spent on primary education in Israel. Israeli education expenditures are above most OECD countries.

NATIONAL EXPENDITURE ON PRIMARY EDUCATION

PER FULL-TIME EQUIVALENT PUPIL RELATIVE TO GDP PER CAPITA, 2017



Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University

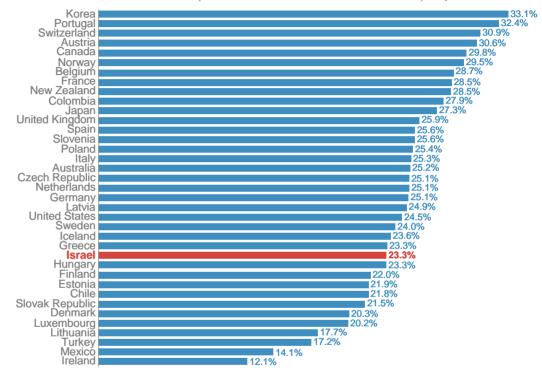
National secondary education expenditure in Israel is higher than in most OECD countries

Education expenditure per pupil normalized by Israel's standard of living is below what most OECD countries spend, though the gaps between the member countries in the middle of the ranking are not high.

The bottom line is that the Israeli education system's primary problem is not a lack of resources but in the manner that they are used.

NATIONAL EXPENDITURE ON SECONDARY EDUCATION

PER FULL-TIME EQUIVALENT PUPIL RELATIVE TO GDP PER CAPITA, 2017



Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University

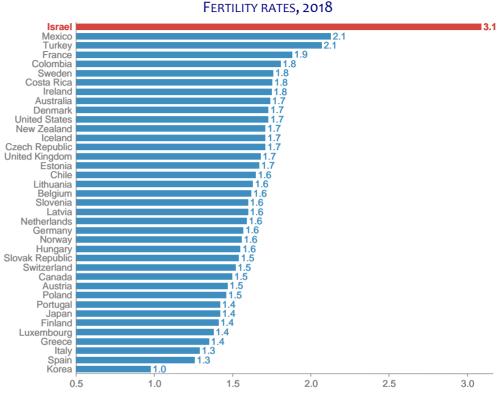
When demographics, education and Israel's future are merged together

For quite some time, Israel's exceptionally high fertility rates have been unparalleled in the developed world. With the fastest growing population groups also receiving third world levels of education, the country is on a socioeconomic trajectory that is not sustainable in the long run. Demographic changes within Israel are occurring at an exponentially increasing rate. The current path that Israel is on – which cannot last forever – means that Israel will become one of the most densely populated countries in the world, lacking the ability to finance the care of its elderly population, or its health, welfare and defense systems at first world levels. Unlike other countries, Israel, which is situated in the planet's most dangerous region, does not have the luxury of becoming a third world country. If Israel will not be able to defend itself, it will cease to exist.

Israeli families average one full child more than the OECD country in second place

The term "unparalleled" describes Israel in a host of various international comparisons. But perhaps this term is most apt in the context of fertility rates.

It is important to note that while all developed countries are members of the OECD, not all OECD member countries are developed. Countries such as Mexico and Turkey, with birth rates of 2.1 children per woman, are in second and third place in the organization's country ranking. Far above them – by a full child – is the State of Israel.



Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University

Data: World Bank

Israel is enroute to becoming one of the world's most densely populated countries

Spain Greece

Ireland

Mexico

Latvia 31.2

Chile 24.3
New Zealand 18.2
Finland 18.1

Norway 14.5 Canada 14.0 Iceland 13.4

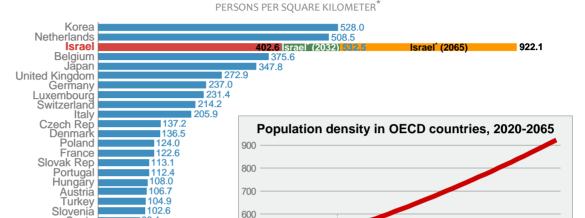
Australia 13.2

Estonia 31.0 Sweden 24.7

Lithuania

United States

Even today, Israel is one of the most densely populated countries in the developed world. Its extraordinary fertility rates put Israel on a trajectory to the overcrowding stratosphere, far above the entire developed world. Comparing the Central Bureau of Statistics' middle forecast to international data, only Bangladesh is more crowded today than Israel will be in just two generations.



Israe

2025

2030

2035

2040

2045

2050

2055

2060

POPULATION DENSITY, 2017

500

400

300

200

100

2020

Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University Data: World Bank, UN and the Central Bureau of Statistics

83.5

69.9

^{*} Midpoint projections by the UN for all countries except Israel. Central Bureau of Statistics midpoint projection for Israel

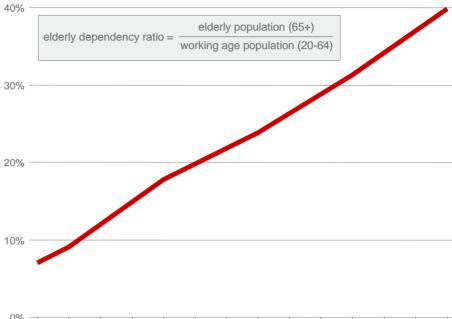
The share of the elderly in Israel's population is skyrocketing

The elderly dependency ratio is defined as the ratio between the population considered to be of retirement age in the developed world (65+) and the working age population, 20-64. Though this ratio is lower in Israel than the OECD average, it is growing rapidly. An additional factor that needs to be considered – especially in Israel – is the demographic composition of the denominator aged 20-64 and its ability to work, earn a living and support the aging population (numerator).

In light of the education levels that Israel currently provides its fastest growing population groups, the denominator's ability to support the numerator will decrease in the future.

ISRAFI'S FI DERLY DEPENDENCY RATIO

PAST YEARS AND PROJECTIONS FOR FUTURE, 1950-2080



1950 1960 1970 1980 1990 2000 2010 2020 2030 2040 2050 2060 2070 2080

Source: Dan Ben-David and Ayal Kimhi, Shoresh Institution

Data: OECD Pensions at Glance 2019

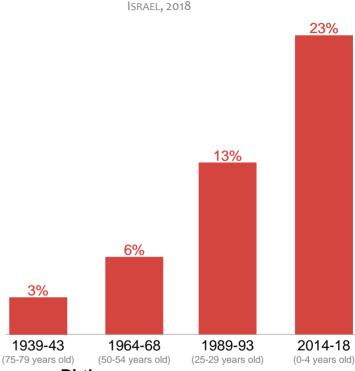
The haredi share of the Israeli population is doubling from generation to generation

The haredim are the main propellant underlying Israel's rapid population growth. The share of haredim – most of whom do not study core subjects and do not receive the basic tools for working in a competitive and global economy – in the population is growing at a rate that is doubling their share in each generation.

The Covid-19 pandemic provided a glimpse of the future when the haredi population was abandoned by its leadership. The unwillingness of haredi leaders to have their community accept the rules mandated on the general public led to higher mortality rates among the haredim and to an overburdening of the health care system that was left with fewer resources to care for the rest of the population.

The relationship between the haredi population's exponential growth rate and the insistence of its leaders to deprive haredi children of knowledge that is required throughout the developed world, knowledge that will enable them to understand their environment independently of their leaders, leads to a future that endangers not only the haredi community, but all of Israel.

SHARE OF HAREDIM IN EACH GENERATION



Birth years (one generation every 25 years)

Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University Data: Israel Democracy Institute (2018)

Apart from the haredim, Israel's Jewish population is seemingly becoming less religious over time. This finding is misleading.

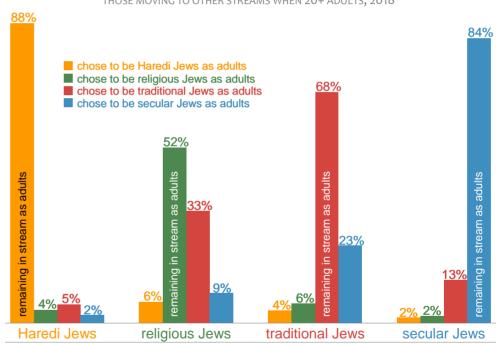
88% of those who grew up as haredim remained haredim in adulthood. The remainder have become less religious. Secular Jews also have high rates of retention (84%) with 13% becoming traditional Jews in adulthood and the rest becoming even more religious.

Only about two-thirds (68%) of those who grew up as traditional Jews remain so, while nearly a quarter (23%) become secular. Only a tenth become more religious. The group that has the most difficulty retaining its children as they mature are the religious Jews. Only about a half (52%) remain religious, a third become traditional and another 9% become secular. Just 6% of those who grew up religious become even more religious (haredim).

On the face of it, one might get the impression that Israel's Jewish population is becoming less religious over time. This is a misleading impression because it does not take into account the large gaps in birth rates – gaps that continue to grow between the most religious group, the haredim, and the other population groups.

RETENTION VS INTERGENERATIONAL MOBILITY BETWEEN JEWISH-ISRAELI RELIGIOUS STREAMS

SHARE OF THOSE REMAINING IN STREAM AND SHARES OF THOSE MOVING TO OTHER STREAMS WHEN 20+ ADULTS, 2018



stream when 15 years old

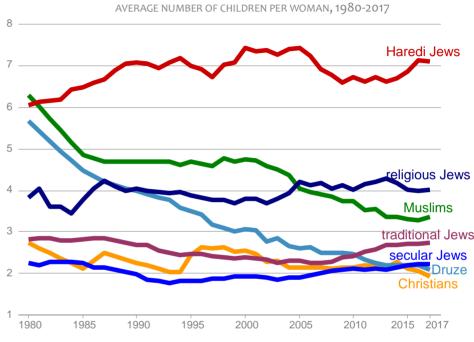
Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University

Data: Central Bureau of Statistics

The primary contributors to Israel's exponential population growth are the haredim

In general, the fertility rates of all population groups in Israel – except those of the haredim – are declining, or are relatively stable. Birth rates of secular Jews, traditional Jews and Christians declined slightly in the 1980s and 1990s. While fertility among Christians rose in the late 1990s, it has since fallen to its lowest level. Fertility rates of secular and traditional Jews have risen slightly in recent years, returning close to their 1980 levels. Religious Jews' fertility rates, with about 4 children per woman, fell slightly below this level and also returned to their 1980 levels in recent years. Druze fertility rates have fallen steadily from near haredi levels in 1980 to secular Jewish and Christian levels today. Muslim fertility rates first declined at a rate similar to that of the Druze and then stabilized in the mid-1980s. Over the last two decades, as the middle class has grown and Muslims have integrated into Israel's economy and society, their fertility steadily declined. The haredim are unlike all others. As their political power grew, after joining a government coalition for the first time in 1977, substantial public funds began flowing in their direction. haredi birth rates jumped by a full child in the 1980s alone and by an additional half a child in the 1990s. When budgets were cut during the recession of the early 2000s, haredifertility declined. With money again beginning to flow in their direction in recent years, haredi fertility has risen and once more crossed the threshold of 7 children per woman.

FERTILITY RATES IN ISRAEL



Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University Data: Central Bureau of Statistics and Hleihel (2018).

In just two generations, half of Israel's children will be haredim

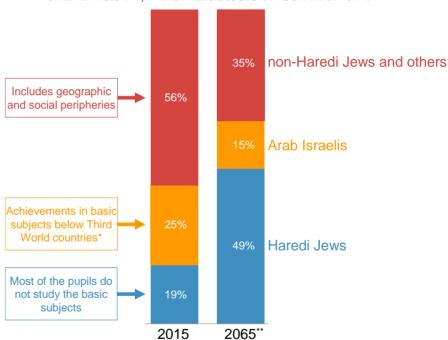
According to the Central Bureau of Statistics (CBS), Israel is changing its face at an exponential rate. It's unlikely that the CBS forecasts will materialize – with a big question as to which scenario Israel will actually follow.

One possible scenario: Israel has some of the world's best universities. All that's needed is for the country's education system to enable the knowledge already within Israel's borders to reach all of the children in each of the population groups as quickly as possible. The more educated people are, the more family size considerations tend to change. Although the country will never return to the Israel of the figure's left column, at least those who will live in the country in two generations will be able to maintain a first world economy and a modern nation as adults.

The second possible scenario: if Israel does not significantly upgrade its education system – this is currently the default situation – the figure's right column will not look as it does here. This is because it's doubtful that many educated and skilled non-haredi Jews will remain in Israel and continue bearing on their increasingly narrowing shoulders the growing population groups without the necessary tools or conditions to work in a global economy.

THE CHILDREN OF ISRAEL – A LOOK AT THE FUTURE

CHILDREN AGES 0-14 IN EACH RELIGIOUS SECTOR AS SHARE OF TOTAL



^{*} The average score of Arabic speakers in Israel in math, science and reading was below nine of the ten predominantly Muslim countries participating in the most recent PISA exam.

Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University Data: Central Bureau of Statistics

^{**} midpoint projection

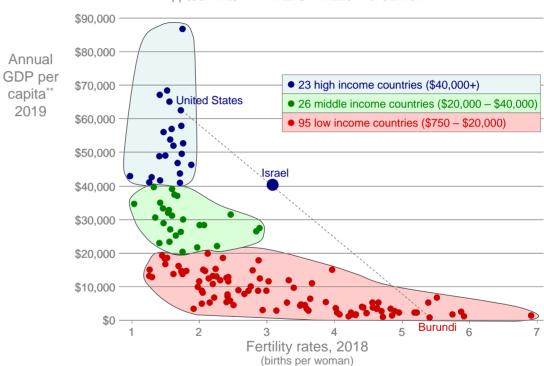
Israel needs to choose which group of countries it wants to belong to – 1st or 3rd world

The figure divides the countries of the world with at least one million inhabitants into three groups according to their income level. The wealthier group includes countries with a per capita GDP of at least \$40,000 per year. While income disparities in this group are quite large, fertility rates in all of the countries are relatively low. The second group, with per capita GDP between \$20,000 and \$40,000, includes countries with higher birth rates. The vast majority of the world's countries are very poor and belong to the third group – with most having very high fertility rates.

Israel does not belong to any group. Its \$40,000 income puts it at the bottom of the wealthy group, but with third-world birth rates. A line stretching from the US through Israel reaches Burundi, the figure's poorest country. Israel is somewhat of a weighted average of the two countries, with first-world traits alongside third-world ones. This is not a steady state equilibrium. If lieu of a change, Israel's current combination of poor education and rapidly growing population groups receiving the worst education portends that its current default is that of the group of poor countries.

NATIONAL LIVING STANDARDS AND FERTILITY

144 COUNTRIES WITH AT LEAST 1 MILLION POPULATION*



^{*} excluding countries that are primarily oil-exporters and city-states

Source: Dan Ben-David, Shoresh Institution and Tel-Aviv University Data: World Bank

^{**} in 2017 PPP dollars.

Summary

Israel is facing a demographic-democratic point of no return. Beyond that point, laws that are already difficult to pass in the Knesset will become impossible to legislate. During the past year and a half of the global pandemic, Israel received a glimpse of how its lack of strategic thinking, lack of governance and lack of enforcement exacerbated one of the most serious non-defense crises in the country's history. Alongside a greater understanding today that things can no longer continue as they have is an extraordinary opportunity for substantial changes that have not been possible for many years.

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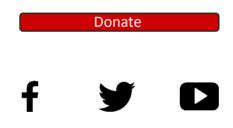
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