

# A Picture of the Nation

Israel's Society and Economy in Figures

Editor: Avi Weiss



Macroeconomics ■

Welfare ■

Health ■

Education ■

Haredim in Higher Education ■

Labor Markets ■

Understanding the Gender Wage Gap ■

# **A PICTURE OF THE NATION**

## ***Israel's Society and Economy in Figures*** **2017**

Editor: Avi Weiss



Taub Center for Social Policy Studies in Israel

*Jerusalem, May 2017*

The research upon which most of the figures and analyses in this booklet are based can be found in the *State of the Nation Report 2016* and other Taub Center publications

# *Taub Center for Social Policy Studies in Israel*

The Taub Center was established in 1982 under the leadership and vision of Herbert M. Singer, Henry Taub and the American Jewish Joint Distribution Committee (JDC). The Center is funded by a permanent endowment created by the Henry and Marilyn Taub Foundation, the Herbert M. and Nell Singer Foundation, Jane and John Colman, the Kolker-Saxon-Hallock Family Foundation, the Milton A. and Roslyn Z. Wolf Family Foundation, and the JDC.

The Taub Center is an independent, nonpartisan, socioeconomic research institute based in Jerusalem. The Center conducts quality, impartial research on socioeconomic conditions in Israel, and develops innovative, equitable and practical options for macro public policies that advance the well-being of Israelis. The Center strives to influence public policy through direct communications with policy makers and by enriching the public debate that accompanies the decision making process.

This volume, like all Center publications, represents the views of its authors only, and they alone are responsible for its contents. Nothing stated in this book creates an obligation on the part of the Center, its Board of Directors, its employees, other affiliated persons, or those who support its activities.

Center address:

15 Ha'ari Street, Jerusalem, Israel

Tel: 972 2 567 1818

Fax: 972 2 567 1919

Email: [info@taubcenter.org.il](mailto:info@taubcenter.org.il)

Website: [www.taubcenter.org.il](http://www.taubcenter.org.il)

English lay-out: Laura Schreiber

Printed at Printiv, Jerusalem

# Table of Contents

<b>Abbreviations</b>	<b>8</b>
<b>Introduction</b>	<b>9</b>
<b>Macroeconomics: In Search of Growth</b>	<b>11</b>
Two decades of relative stagnation in GDP per capita	12
Recent slow productivity growth has led to slow income growth	14
A monumental shift in growth sources	15
Growth through increased employment? The portion of the working-age population is shrinking	16
Slow growth in human capital	17
A larger portion of the working population is earning relatively low wages	18
A slowdown in physical capital investments	20
The difficulty of doing business in Israel: A major impediment to attracting foreign investments	22
<b>Welfare: Tackling Poverty</b>	<b>23</b>
Poverty rates in Israel remain among the highest in the OECD	24
Reductions in market income poverty levels, but not in disposable income poverty levels	25
Trends in inequality are similar to those in poverty, but stem from different sources	26

Partial implementation of the Elalouf Committee’s recommendations for combating poverty	27
The portion of the government’s budget spent on social expenditure is the highest this century	28
The share of GDP spent on social welfare has been stable in recent years	29
Social security payments comprise the vast majority of social welfare expenditures, but negative income tax is growing in importance	30
Nearly all of the outsourcing of welfare services is allocated to established firms	31
The level of competition in outsourcing has increased over time	32
Home and pension ownership among elderly immigrants are on the rise	33
Lower income for Arab Israeli and immigrant senior citizens	34

**Health: Longevity, Healthy Living and Aging** **37**

Men in Israel live 7.2 years longer than expected – partly related to mandatory military service	38
Healthy life expectancy in Israel is among the highest in the world, but is growing slower than total life expectancy	39
The portion of senior citizens is expected to increase	40
The fastest growing health issue in Israel is diabetes	41
Israelis are healthier than Europeans overall, but not across all diseases	42
Israel’s younger average age means a lower disease burden, but the country must prepare as the population ages	43
Israel’s elderly are more likely to be cared for at home rather than in institutions	44
In Israel, a greater share of the burden of caring for the elderly falls on households than in most OECD countries	45
Private health insurance has become more prevalent, and is another growing source of inequality in healthcare provision	46

Increase in private health expenditures, some like unnecessary	47
Although private healthcare expenditure increases with income, it decreases as a percentage of income	48
Median waiting times for elective surgery in Israel seem relatively short compared to other OECD countries	49
Waiting times for elective surgery vary greatly across procedures and hospitals	50
Fewer hospital beds, doctors, and healthcare professionals in the periphery, as well as longer waiting times	51
The cost of eating healthy is exorbitant for low income families	52

**Education: Improvement Shown** **53**

The “stroller protest” — the disproportional increase in the private cost of preschool	54
The benefits from free education for 3-4-year-olds felt mainly by middle and upper class households	55
The number of pupils is increasing, but at vastly different rates in each of the four education systems	56
Growth rates in the number of pupils in the different education streams are converging	57
Socioeconomic improvement in the Arab Israeli sector but deterioration in the Haredi sector	58
Teacher salaries rose significantly over the past decade, and now surpass the average salary substantially	59
A large improvement in teachers’ academic credentials	60
Class sizes have been falling faster in the Arab Israeli sector than in the Jewish sector	62
Class size seems not to affect grades	63

<b>Education Spotlight: Haredim in Higher Education</b>	<b>65</b>
The number of Haredim enrolling in higher education has nearly tripled in six years	66
The share of young adult Haredim in higher education is still quite small	67
The number of Haredim in higher education is actually overstated	68
Dropout rates are particularly high for Haredi men	69
One of the main reasons for the high dropout rates: A lack of preparedness	70
The portion of Haredim accepted to academic studies without a bagrut or psychometric exam is now over 50%	71
The highest dropout rates are from the Open University; the lowest are from the other universities	72
<b>Labor Markets: Stretching the Limits</b>	<b>73</b>
Increase in labor force participation rates and decrease in unemployment	74
Employment rates among Jewish women are the second highest among all OECD countries	76
In all Haredi streams, the employment rate of young men is lower than that of young women	77
Real wages have caught up to earlier productivity increases	78
Arab Israelis and Haredim lag behind in computer literacy	80
<b>Labor Market Spotlight: Understanding the Gender Wage Gap</b>	<b>83</b>
Hourly gender wage gaps are similar to those in the OECD	84
The hours-worked gap between men and women	85
Beyond differences in working hours, the wage gaps stems largely from differences in occupations	86

Differences in exam scores in mathematics also explain part of the wage gap	88
Looking for the source: In high-school, girls choose to study math and science less than boys	90
The employment gap widens: Fewer women trained in computer science work in the field	91
Women tend to choose employment in industries with relatively fewer work hours	92
Women are much more likely to work close to home	93

**Infographic: Private expenditure on long-term care in Israel** **94**

# Abbreviations

BOI	Bank of Israel
CBS	Central Bureau of Statistics
EU	European Union
IMF	International Monetary Fund
NII	National Insurance Institute
OECD	Organisation for Economic Co-operation and Development
UNECE	United Nations Economic Commission for Europe
WHO	World Health Organization



# Introduction

It is with great pleasure that I present *A Picture of the Nation 2017*, which aims to paint a simple, yet comprehensive picture of the socioeconomic situation in Israel. In the pages that follow, you will find different aspects of this picture, some predictable and some surprising, demonstrating the good and the bad in the Israeli socioeconomic structure. We begin with a broad look at the macroeconomic picture, breaking down Israel's growth into its components, and considering possible sources for future growth. Zooming in, we examine individual well-being by looking at the state of welfare, health and education in the country. Beginning with welfare, we share findings related to income distribution and government efforts to reduce poverty and inequality. The health section takes a hard look at a major health indicator – longevity – from two unique perspectives: it presents data on healthy life years (without disabling diseases) and offers an explanation for the long life expectancy of men in Israel. We also look at how the availability of services in the health system differs across geographic areas and hospitals. Moving on to education, we show the results of large increases in the education budget, including higher teacher salaries and smaller classes. A special subsection is devoted to discussing Haredi integration into higher education. Finally, we address changes in the participation of various subgroups in the labor market, and then focus on explaining wage discrepancies between men and women in Israel, presenting results that are not yet widely recognized in the field.

We trust that the story being told through these figures will prove informative and enlightening, and hope that the lessons that can be learned will serve to advance the well-being of Israeli society and its citizens.

Prof. Avi Weiss

Taub Center Executive Director

Department of Economics, Bar-Ilan University





# Macroeconomics

## In Search of Growth

The past year was a good one from a macroeconomic perspective with increasing employment, decreasing unemployment and an unexpectedly high GDP growth rate of 4%. Unfortunately, it seems this healthy growth may turn out to be an outlier rather than a trend. The factors responsible for the growth this year included a one-time investment by Intel in their new plant in Kiryat Gat, and an increase in car purchases that resulted from expected changes in tax brackets. These factors cannot necessarily be expected to continue to contribute to growth, meaning that the seeds for further growth must be found elsewhere. The following pages feature an analysis of growth and its sources over the past two decades, and discuss possible sources looking forward, including steps that would allow the economy to attain increased growth.

## Two decades of relative stagnation in GDP per capita

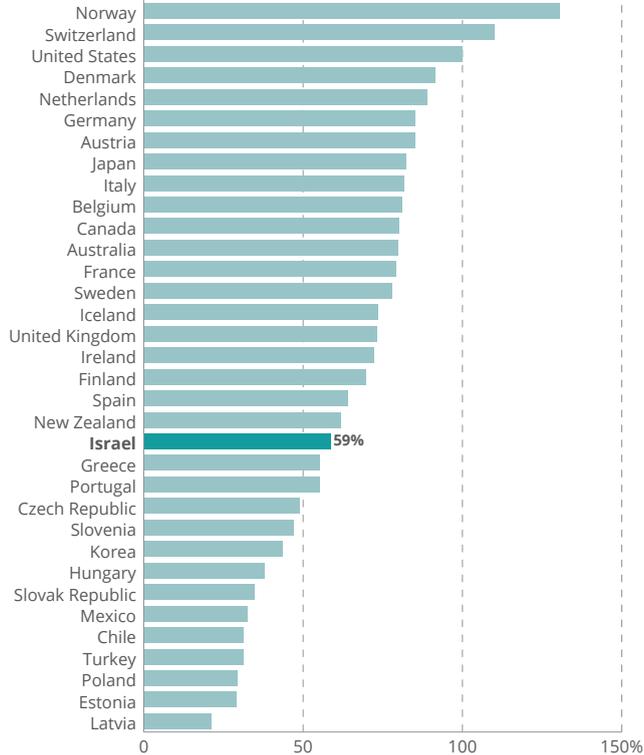
Despite Israel being the “start-up” nation, the past two decades have not been ones of strong growth for the economy as a whole relative to other developed countries. This is due, to a large extent, to the lack of productivity growth in non-high-tech or manufacturing sectors.

In 1996, Israel’s GDP per capita was only 59% of that in the United States. Theory suggests that for open economies income per capita for similar countries should converge, and, indeed, a glance at the figure shows that countries with low income levels (the left panel) tended to grow

significantly relative to the United States (the right panel), while those in the upper portion of the distribution tended to grow less quickly than did the United States. Yet Israel’s growth has been slower than that of most of the countries ranked below it, and many of those ranked slightly above it. While Israel’s rank in terms of GDP per capita (22 out of 34) has been steady, Israel’s edge over the lower ranked countries has fallen significantly, and its slower growth in income per capita could jeopardize this ranking.

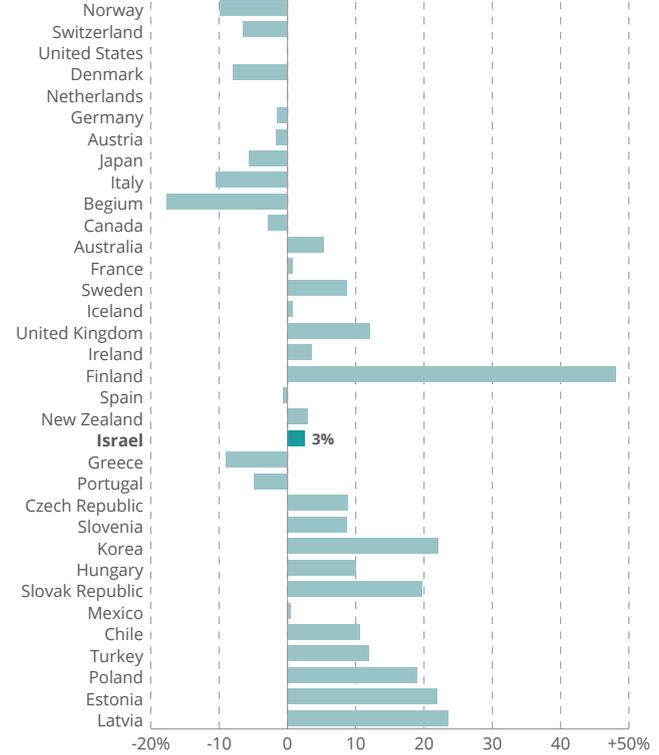
Source: Gilad Brand, Taub Center  
Data: IMF, World Economic Outlook Database

## GDP per capita relative to the US, PPP adjusted, 1996



## Change in GDP per capita relative to the US, PPP adjusted, 1996-2016

Fixed prices

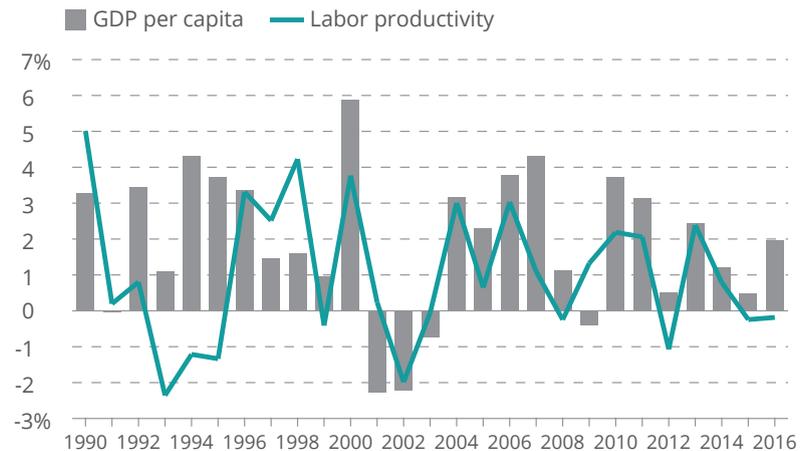


# Recent slow productivity growth has led to slow income growth

In 2016, Israel's GDP rose by 4% (representing 2% growth in GDP per capita) after a number of years of slow growth. Continuing the most recent trend, the increases in demand were supported to a great extent by a rise in employment, a cheapening of consumer credit and a healthy increase in salaries. These have resulted in a rapid widening of private consumption.

A major constraint to more rapid growth in the economy is the lack of growth in labor productivity. This index declined slightly in the past year, and its current level is similar to that in 2011. The recent decrease in productivity stems from, among other things, the influx of new population groups with relatively low skill levels into the labor force, as will be shown on page 17-19.

**Annual growth rate of GDP per capita and labor productivity**



Source: Gilad Brand, Taub Center  
Data: BOI

# A monumental shift in growth sources

It is standard practice to break per capita economic growth down into its main determinants — changes in employment, the quality of human capital and the amount of physical capital — with all remaining, unexplained growth attributed to “general productivity” (which represents an increase in the ability of the economy to utilize the factors at its disposal). There has been a major shift in the causes of growth over the last two decades. While two decades

ago over 80% of the growth came from a combination of investments in physical capital and increases in human capital (largely due to an increase in enrollment in higher education and the integration of Soviet immigrants’ human capital into Israeli society and its labor market), in the last decade, the most significant growth factor was the increase in employment. This shift raises concerns regarding the availability of sources for future growth, as we will show.

**GDP per capita growth sources**



Source: Gilad Brand, Taub Center  
Data: BOI; CBS, Income, Expenditure and Labor Force Surveys

# Growth through increased employment?

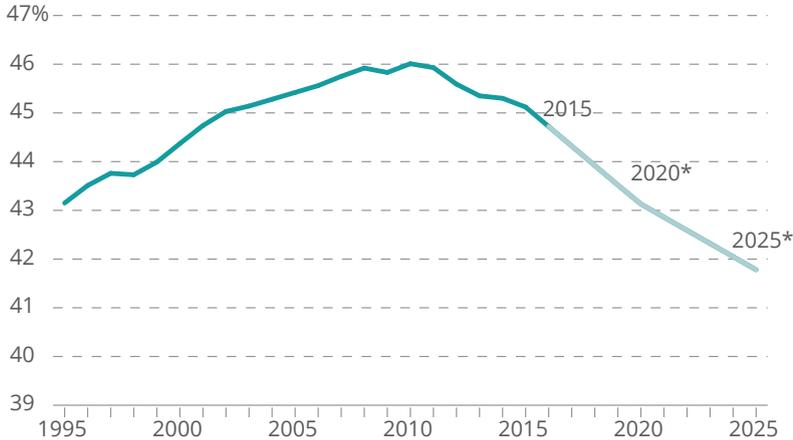
## The portion of the working-age population is shrinking

As shown in the figure on page 75, the employment rate for both men and women has risen in recent years. It seems, though, that this positive development is not expected to continue for long, since employment levels seem to have nearly peaked (although we might still see an increase in labor force participation rates among Arab Israeli women and Haredi men).

An additional factor that is likely to reduce employment levels is the expected change in the age distribution in Israel stemming from its aging population. The decline in the share of the working age population (ages 25-64) over the past five years resulted in a cumulative reduction of 2 percentage points in per capita growth. This trend is likely to strengthen until the end of the decade with a further reduction of

0.6 percentage points per year in per capita growth. Thus, alternative sources for growth are needed. In view of the rise in life expectancy and the improvements in the health of the aging population in Israel, there may be room to consider raising the retirement age — a subject that warrants a broader discussion.

**Share of working-age population (ages 25-64)**



\* CBS population forecasts  
Source: Gilad Brand, Taub Center | Data: CBS, Population Forecasts for the Israeli Population 2020-2035

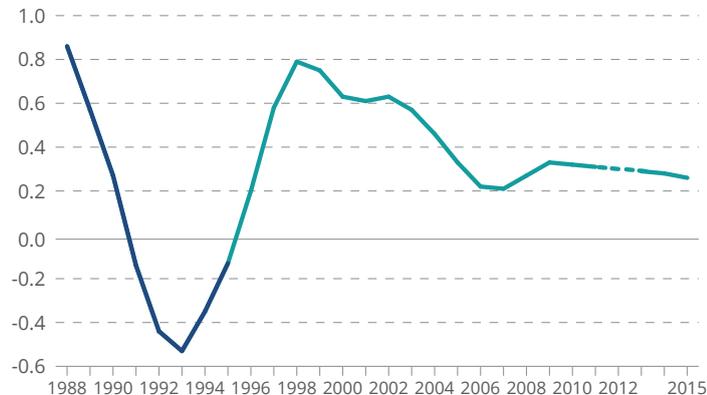
# Slow growth in human capital

This figure shows the change in the level of human capital, measured by assigning weights to each worker by his observable characteristics. The impressive growth in human capital in the second half of the 1990s yielded significant growth for the economy, but human capital has increased far slower over the last decade. One possibility for improving growth is a change in higher education and in employment training. Today, the majority of those in higher education study in colleges that were established in the past few decades in which the return on education is lower than in universities. In addition, the number of those studying law and business management is high despite the fact that there are more lawyers in Israel than in any other developed country.

A sharp change in the educational mix in institutions of higher education and an improvement in the human capital of those without higher education may prove to be a source for future growth.

## Rate of human capital growth trend data

In percentage points



Notes: Estimated using an HP filter. Data for 1988 to 1995 (dark blue line) are based on estimates of Zussman and Friedman (2008). Due to changes made in the CBS surveys in 2012, it is not possible to derive an estimate for that year.

Source: Gilad Brand, Taub Center

Data: CBS, Income, Expenditure and Labor Force Surveys

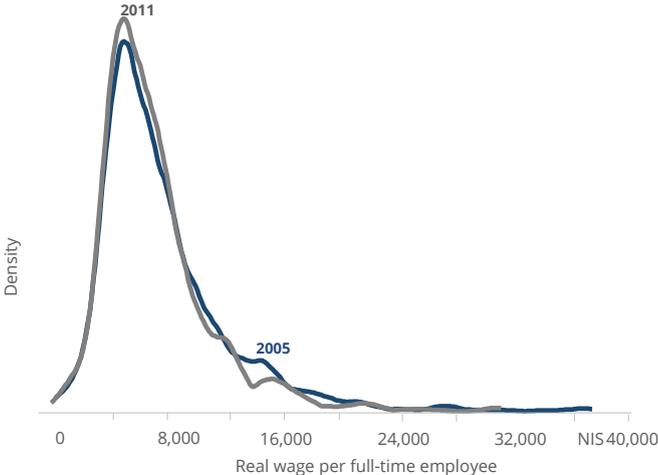
## A larger portion of the working population is earning relatively low wages

In the second half of the previous decade, there was a substantial increase in employment rates. This positive development increased the disposable income per household as well as private consumption. Yet, at the same time, it had diametrically opposing effects on average wages, most substantially among younger workers (ages 30-35). On the one hand, within each group (those with and without a higher education) the percentage of workers with relatively low incomes increased, as seen in the figure, with a stronger effect for those with a higher education. Alongside this, the rise in the share of those with a higher education, and, therefore, higher wages, at least partially offset the fall in the average wage within each group.

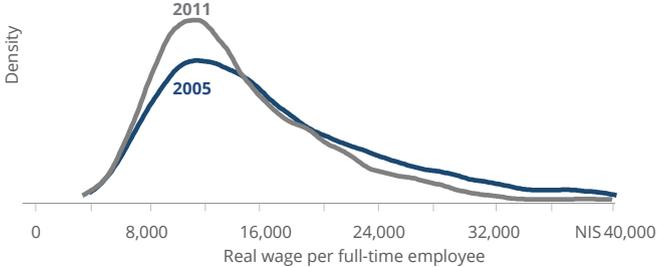
These findings indicate that it is not sufficient to increase accessibility to higher education; there is a need to also address teaching quality at early stages in the education system, and particularly to improve the skill level of college-bound adults and those who are not college bound. Looking to the future, the populations that can still increase their labor force participation (primarily Haredi men and Arab Israeli women) are characterized by skill sets that are not particularly well-suited to the modern labor market, and have low earning prospects. Thus, their potential contribution to the growth of the economy is relatively limited. In order to change this, significant steps will have to be taken to improve education levels among these population groups.

# Distribution of wages for 30-35-year-old salaried employees

## Without higher education



## With higher education



Note: Due to broad changes in CBS methodology in 2012, consistent comparisons for later periods are not possible  
Source: Gilad Brand and Avi Weiss, Taub Center  
Data: CBS, Income Survey

## A slowdown in physical capital investments

While investments in physical capital and infrastructure increased tremendously in the 1990s, they have since slowed significantly. With respect to infrastructure, there have been recent increases in investments in transportation and energy, but decreases in investments in water and telecommunications. With respect to private investments, there have been some significant foreign investments over the past few years (e.g., Intel's new plant in Kiryat Gat, and their recent purchase of Mobileye and the planned expansion of their plant), but these have been too few and far between. The current trade agreement with China and pending agreements with other countries could change this. However, one impediment to the expansion of private investments is the general difficulty of conducting business in Israel, as discussed in the next figure.

## Investment in infrastructure as a percent of GDP



## Index of net capital stock per hour worked in the business sector 1975=100



Notes: Investment in infrastructure includes investment in seaports, airports and land transportation infrastructure, communications, electricity and water  
Source: Gilad Brand and Avi Weiss, Taub Center  
Data: BOI, Annual Report 2014, Chapter 2, 54; CBS

# The difficulty of doing business in Israel: A major impediment to attracting foreign investments

Another potentially important growth engine can come from improving the business environment. The World Bank publishes an annual report *Doing Business* that ranks the ease of conducting business in countries (a low numerical value indicates better regulations for businesses). Israel is ranked in 52<sup>nd</sup> place, below almost all the other OECD countries. This ranking reflects the need to streamline the bureaucratic processes — primarily in the areas of real estate, exports, asset registration, and taxation. One possibility for improving this situation is concentrating all of the required procedures for establishing a business under a single authority.



Source: Gilad Brand and Avi Weiss, Taub Center  
Data: World Bank, Doing Business Index



# Welfare

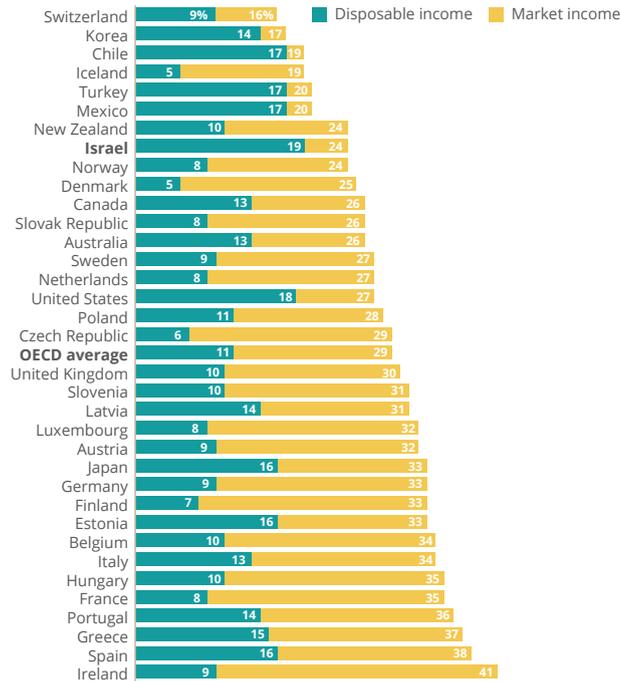
## Tackling Poverty

The government has increased expenditures, both in absolute terms and as a percentage of total government expenditures, on the three social expenditure categories — health, education and welfare. Still, poverty levels and inequality in Israel remain among the highest in the developed world. The reasons are well-known: 1) there are two sizable population groups who tend to have large families, low levels of education and low levels of labor force participation, and, as a result, low incomes; and 2) tax rates in Israel are relatively low. The Committee for the War Against Poverty (more commonly known as the Elalouf Committee) was formed in 2013 to address the issue of poverty, and presented its recommendations in June 2014. While some of the recommendations were adopted, others were not, putting into question the feasibility of achieving the stated goal of lowering the poverty level in Israel to the OECD average within a decade. In the pages ahead we present different perspectives regarding the welfare situation in Israel, and in the following sections we will discuss education and health.

# Poverty rates in Israel remain among the highest in the OECD

When measuring market income (before taxes and transfer payments), the poverty rate in Israel is actually lower than in most OECD countries. Looking at the income that is available for spending – disposable income – Israel is in last place. The gap between market income poverty rate and disposable income poverty rate is considered an indicator of a country’s success in lessening poverty through taxation and welfare systems. Using this indicator, Israel is ranked fifth from the bottom. All five of the lowest ranked countries have particularly low tax rates, which limits their ability to tackle poverty. The juxtaposition of population groups with low levels of human capital, low labor force participation, and large families with low tax burden makes the war on poverty particularly challenging.

Share of individuals below the poverty line, 2012-2014

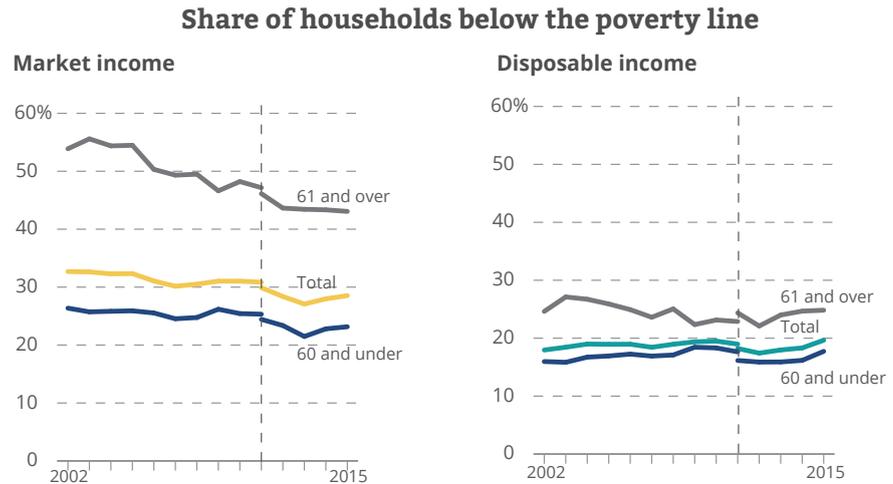


Note: Data for most countries are from 2013  
 Source: Haim Bleikh, Taub Center  
 Data: OECD

# Reductions in market income poverty levels, but not in disposable income poverty levels

Market income poverty levels have fallen over time, particularly for the older population groups. This has largely been the result of an increase in the retirement age, which has led to people working longer. However, disposable income poverty rates have barely changed over more than a decade. An analysis of the working age population alone shows that while the disposable income poverty level has not changed, its composition has changed significantly. The Arab Israeli and Haredi populations comprised “only” 44% of those below the poverty line in 2002, but by 2015, this figure had risen to 57%. This increase far outstrips the changes in the groups’ relative sizes within the total population. Note that while seniors

have higher poverty levels, they also tend to have more assets. Since poverty figures consider current income only, the poverty level among this group may be overstated.



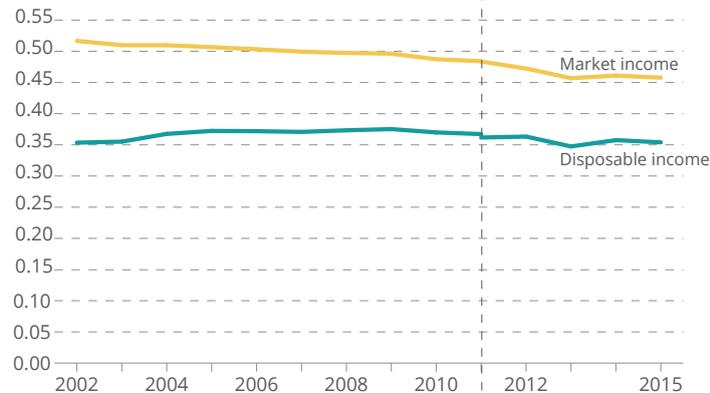
Notes: Calculated using the OECD method. Age categories refer to both the head of the household and his/her partner. From 2011, data are from both the Income and the Expenditure Surveys.  
Source: Haim Bleikh, Taub Center  
Data: CBS, Income and Expenditure Surveys

## Trends in inequality are similar to those in poverty, but stem from different sources

Since 2002, market income inequality has consistently declined. In contrast, disposable income inequality rose at first, stabilized, and then declined. Most of the change is attributed to the working age population, which was larger than the population of retirees. This development is explained, in part, by a cut in child allowances in 2003. This apparently led to a rise in employment, particularly among Haredim. As a result, the portion of income from labor grew, transfer allowances declined, and market incomes became more equal. At the same time, disposable income inequality rose, since the cut in allowances and a decrease in tax rates harmed the weaker socioeconomic groups and helped the middle and upper classes.

Over time, more and more individuals joined the labor market and disposable income inequality fell to levels similar to those at the beginning of the period.

**Gini index of income inequality**



Note: Calculated using the OECD method. From 2011, data are from the Income and the Expenditure Surveys.  
Source: Haim Bleikh, Taub Center  
Data: CBS, Income and Expenditure Surveys

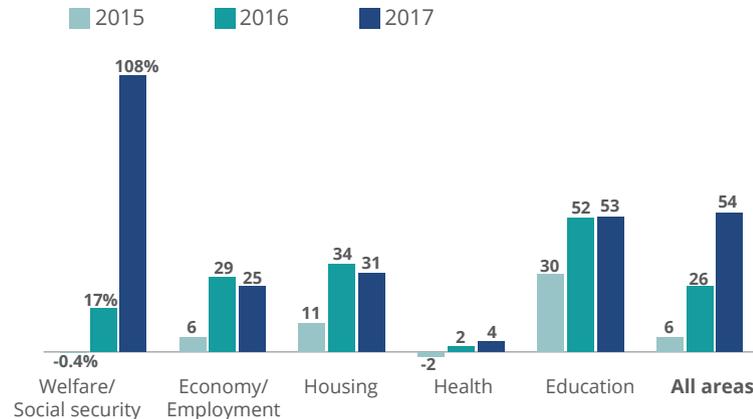
# Partial implementation of the Elalouf Committee's recommendations for combating poverty

In 2014, the Elalouf Committee presented a comprehensive plan for reducing poverty rates to the average OECD level within a decade. The price tag stood at NIS 7.4 billion per year. Due to elections in 2015, the government put few of the recommendations into effect and added only NIS 434 million to the relevant budget areas. In 2016, NIS 1.9 billion was added to the budget – about 26% of the additional sum recommended. After the committee completed its work, various programs were enhanced, like old-age income supplements. Nevertheless, the government did not implement some of the main recommendations, such as across the board increases in income support.

In 2017, the additional expenditure is expected to reach NIS 4 billion (about 54% of the recommended amount).

The majority of the increase over 2016 is for the “Savings for Every Child” program, for work grants (negative income tax) and for an additional increase in the old-age income supplements. These steps are an improvement in the implementation of the committee recommendations, though they seem insufficient to attain its declared goal.

**Portion of Elalouf Committee recommendations expended**



Source: John Gal and Shavit Madhala, Taub Center  
 Data: NII; Ministry of Finance; Report of the Committee for the War Against Poverty, 2014

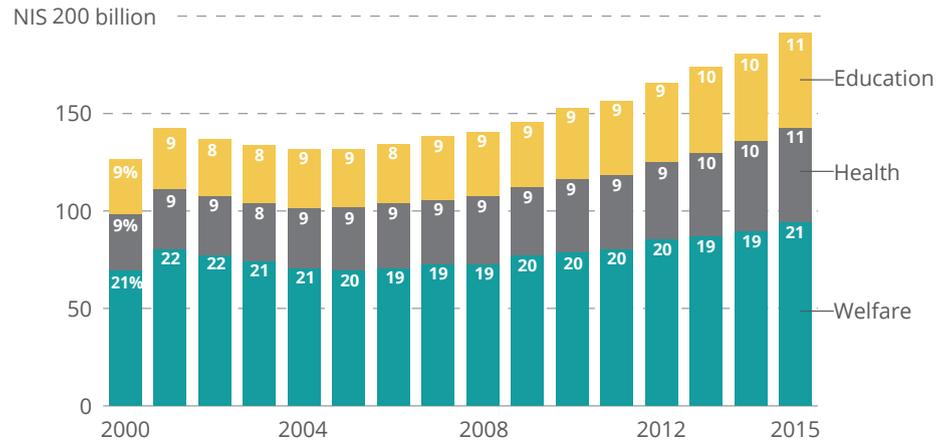
# The portion of the government's budget spent on social expenditure is the highest this century

Social welfare expenditure — which is composed of the combined government expenditure on education, health and welfare — stood at about NIS 192 billion in 2015. The share of social expenditure out of total government expenditure is the highest since the start of the new millennium.

The welfare expenditure in 2015 was about NIS 94 billion. This is some 21% of total government spending and about half of the total social welfare expenditure.

## Social welfare expenditure

In 2015 prices and as a percent of total government expenditure



Source: John Gal and Shavit Madhala, Taub Center

Data: Ministry of Finance, Implementation Budget; NII, *Statistical Quarterly*; CBS, *Statistical Abstract of Israel*

# The share of GDP spent on social welfare has been stable in recent years

Overall expenditure on welfare can be divided into two main components: social security programs, which are largely transfer allowances, and social services, which include an array of programs like community and institutional care. An examination of the spending for these two components out of GDP shows relative stability – about 9% in 2015.

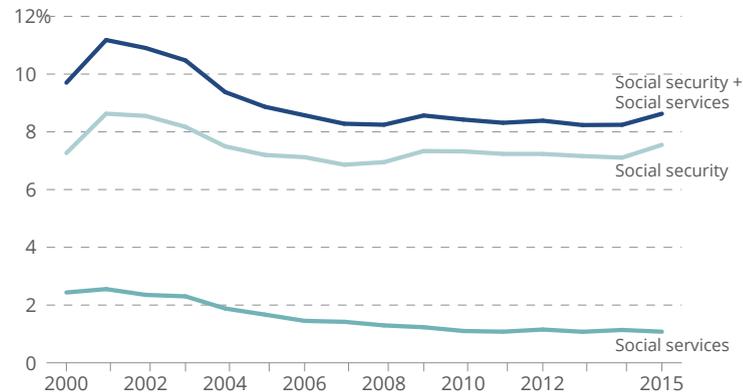
As the figure shows, the budget dedicated to social security is considerably higher than that dedicated to social services. In fact, more than 80% of the total expenditure is for social security programs. There are differences in trends between the two areas as well, with an increase in social security spending versus stability in the area of social services.

In shekel terms, in 2005 there was a rise in social security spending (see

*A Picture of the Nation 2016*, page 20). The main cause of the rise is demographic changes as well as targeted expenditures, particularly for the elderly and people with disabilities. In contrast, social services spending has declined slightly over the years and remains low.

## Expenditure on social welfare

As a percent of GDP



Source: John Gal and Shavit Madhala, Taub Center

Data: Ministry of Finance, Implementation Budget; NII, *Statistical Quarterly*; CBS, *Statistical Abstract of Israel*

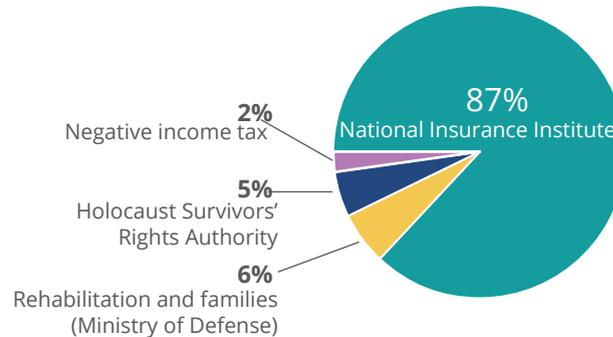
## Social security payments comprise the vast majority of social welfare expenditures, but negative income tax is growing in importance

About 90% of the social security expenditure is for allowances administered by the National Insurance Institute. Some of these allowances are universal and some are intended for those with low incomes. In Israel, almost everyone qualifies for some type of allowance over their lifetime.

Another area included in social security is the negative income tax (work grants), which was instituted in 2007. The grant is paid to low income earners, especially those with families, and is intended to reduce poverty and to assist those with low incomes without serving as a disincentive to employment. In 2014, 275,500 people were eligible for this grant, and the uptake rate was about 70%.

Spending in this area has increased over the years but it remains quite low; in 2015, it was about NIS 1.3 billion – 1.6% of total social security expenditure.

**Distribution of social security expenditure, 2015**



Source: John Gal and Shavit Madhala, Taub Center  
Data: Ministry of Finance, Implementation Budget; NII, *Statistical Quarterly*

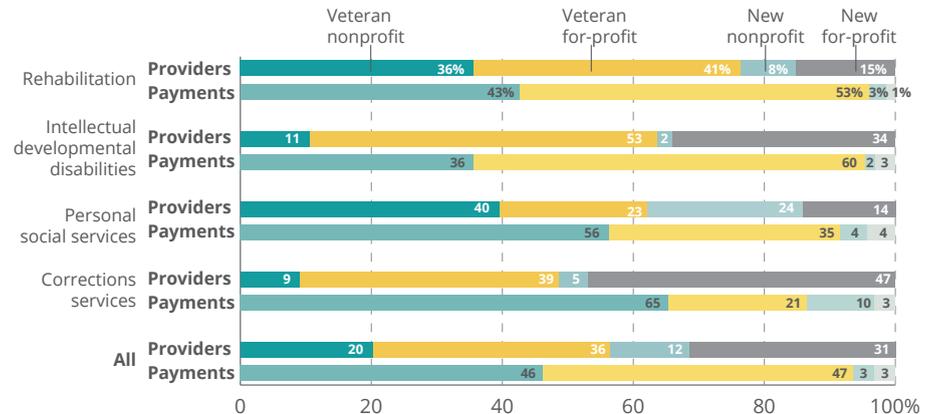
## Nearly all of the outsourcing of welfare services is allocated to established firms

Expenditure on outsourcing in the Ministry of Labor and Social Welfare in 2015 was about NIS 8.4 billion – about 80% of the ministry’s budget. The large share of outsourced services and the rising trend of the past few years indicate their central role in welfare service provision in Israel.

In 2015, there were 2,697 service providers to the ministry. Of these, two-thirds were private businesses and one-third were nonprofit agencies. Still, payments to these different types of providers was similar: about half the payments went to nonprofits and half to private agencies. While “only” about 56% of the providers have been in the market for a long-time, their share of receipts is substantially higher at 94%. Even in the corrections division

(rehabilitation, probation and prevention), where less than half of the providers had lengthy tenure, they still received 87% of the payments.

**Distribution of service providers and payments, 2015**

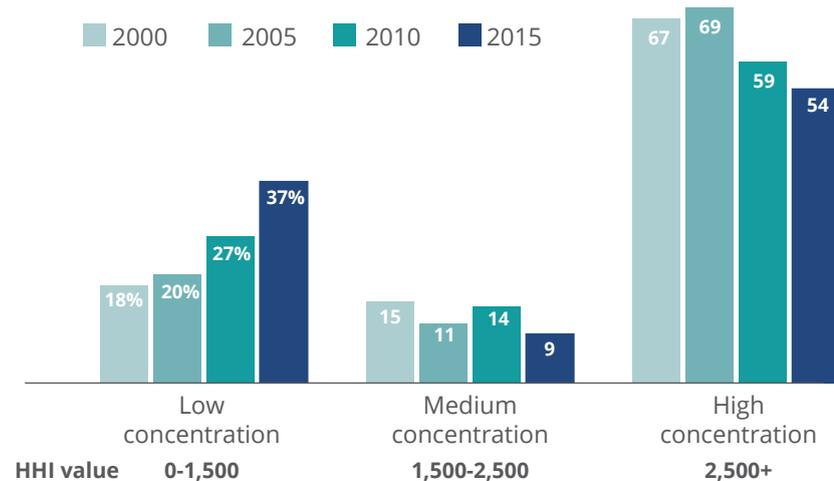


Source: Shavit Madhala and John Gal, Taub Center  
Data: Ministry of Labor and Social Welfare

# The level of competition in outsourcing has increased over time

The Herfindahl-Hirschman index (HHI) is a widely used metric measuring the level of concentration in an industry, and is often used as a proxy for the level of competition in the industry. Assuming that we consider each budget line to be a separate market (which may not be a good assumption in all cases), there is a decrease in the number of “markets” that are highly concentrated and an increase in the number with low concentration. These trends indicate that outsourcing is becoming more competitive, which can be expected to have a positive effect on pricing and, possibly, on quality. More importantly, analysis of the findings identifies those areas in which competition is still lacking, showing where regulatory efforts may be most beneficial.

**Distribution of HHI values for budget lines**



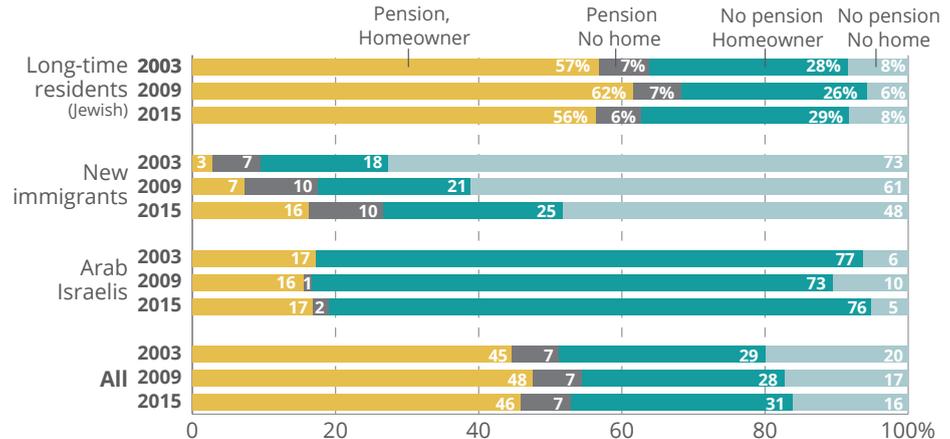
Source: Shavit Madhala and John Gal, Taub Center  
Data: Ministry of Labor and Social Welfare

# Home and pension ownership among elderly immigrants are on the rise

Among households headed by someone age 66 or older, the homeownership rate is 77% and more than half have income from an occupational pension. The share of households without income from an occupational pension and who are also not homeowners fell from 20% in 2003 to 16% in 2015.

Dividing the population into subgroups highlights differences. In the Arab Israeli population, for instance, homeownership rates are high and similar to those of long-time Jewish residents. The share of those with a pension, though, is substantially lower. The most noteworthy changes over time were among new immigrants. Their homeownership rate increased from 21% to 41% within a decade, and the share of those with a pension rose from 10% to 26%. These changes were mostly among younger cohorts.

**Distribution of households headed by 66+ year-olds**



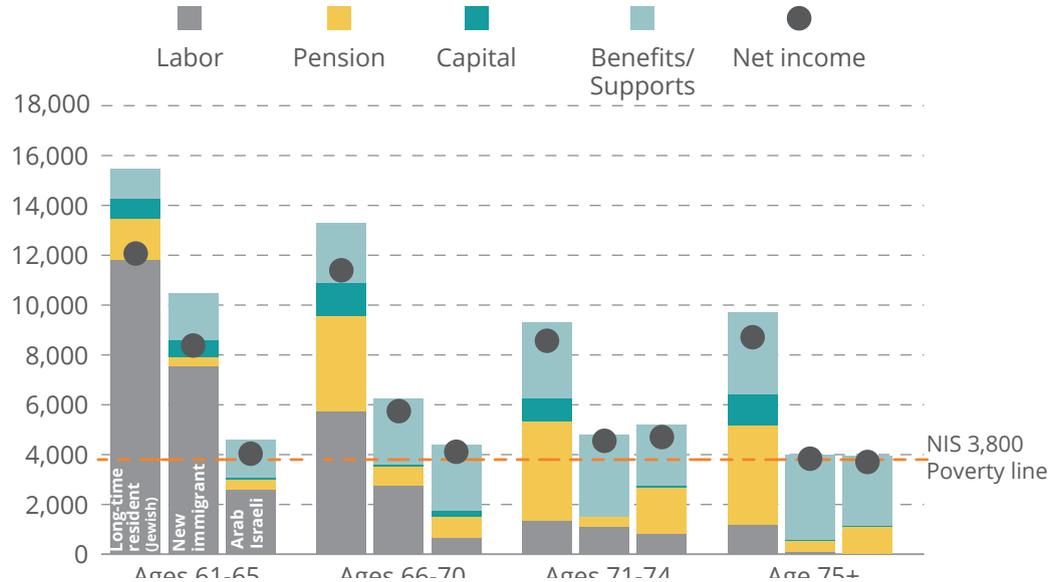
Source: Haim Bleikh, Taub Center  
Data: CBS, Income Survey (2003, 2009), Expenditure Survey (2015)

## Lower income for Arab Israeli and immigrant senior citizens

Most of the older population does not participate in the labor market and their income is largely dependent on savings (occupational pensions and capital savings) or government supports. Dividing the population indicates income gaps between long-time Jewish residents, immigrants and Arab Israelis (bearing in mind that data regarding Arab Israelis are based on a relatively small number of observations). The majority of the gap is due to differences in market income, primarily occupational pensions. Thus, the likelihood of being below the poverty line among immigrant and Arab Israeli populations is substantially higher for the over age 60 groups.

Nevertheless, it is important to note that there is an array of in-kind services provided to older population groups through discounts and exemptions (e.g., discounts on city property tax and electricity, subsidies on medications and public transportation) that are not included in market income. There is no measure we are aware of for the value or the uptake rate for these benefits, and it is possible that they change the picture.

## Monthly household income, NIS, 2015



Notes: Calculated using the OECD methodology. Benefits/Supports include NII transfer allowances, government supports and other supports.

Public benefits and supports account for at least 90% of these supports.

Source: Haim Bleikh, Taub Center

Data: CBS, Expenditure Survey 2015





# Health

## Longevity, Healthy Living and Aging

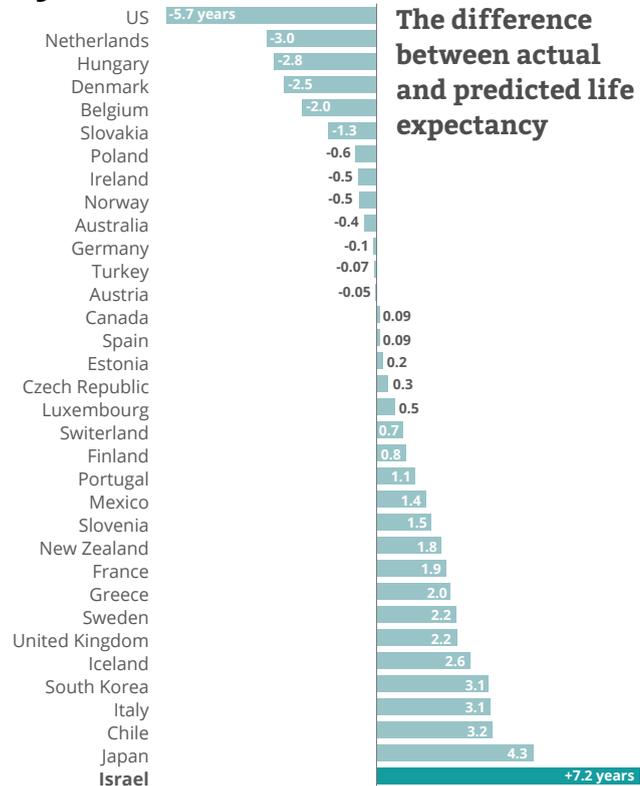
Health in Israel is generally considered to be excellent; Israelis' longevity is among the highest in the world, and among the highest in estimated number of healthy years one can expect to live. However, the number of non-healthy years is also high and on the rise, and one of the implications of an aging population is an increase in medical needs and a resultant increase in health system costs. In addition, a result of the increasing longevity is an increasing financial and time burden on the families of the aged, and, consequently, those who can afford it are purchasing more health insurance than in the past, which leads to an increasingly unequal national health system. In the pages ahead, we will examine other inequality-related issues, such as geographic variation in waiting times for elective surgery and the affordability of a healthy diet.

# Men in Israel live 7.2 years longer than expected — partly related to mandatory military service

Not only is male life expectancy in Israel one of the highest in the world (80.2 years), it is also much higher than expected given Israel's wealth, educational profile, and health and demographic characteristics. After taking into account differences in country characteristics across 170 countries, we found that life expectancy in Israel is 7.2 years greater than predicted.

Adding other explanatory factors shows that about 3.6 years of this difference may stem from Israel's mandatory 3 years of military service. This unexpected finding is corroborated using additional tests. For instance, mortality from cardiovascular disease is one of the lowest in the OECD, and within Israel it is much lower among the Jewish population than Arab Israelis; and the 3.7 year life-expectancy gap between men and women is also among the smallest in the OECD. Both of these differences are consistent with more Jewish men having undergone vigorous physical training during their main military service, as well as before (in anticipation of service) and after (in reserve duty).

Source: Alex Weinreb, Taub Center  
 Data: WHO, Global Health Observatory; Nunn and Puga, 2012

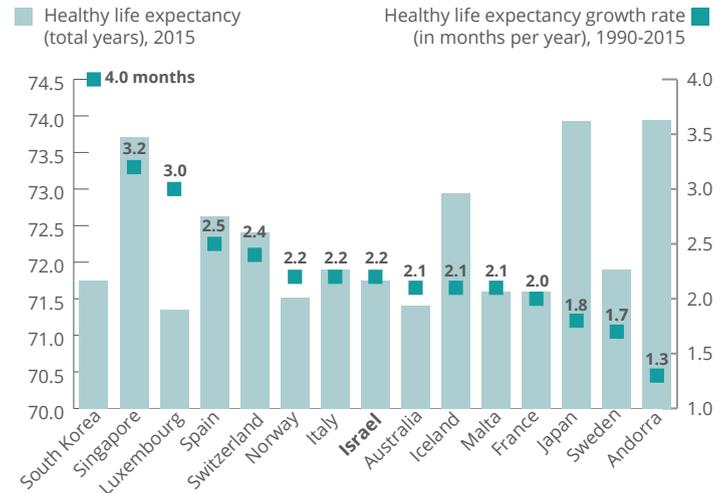


# Healthy life expectancy in Israel is among the highest in the world, but is growing slower than total life expectancy

The countries with the longest life expectancies also tend to have the greatest number of years one can expect to live in good health, with Israel ranking ninth in the world in life expectancy and tenth in healthy life expectancy. A baby born in 2015 in Israel can expect to live on average 71.7 years in good health; about 10.4 years less than its average total life expectancy. Healthy life expectancy in Israel grew at an average rate of 65 days per year between 1990 and 2015 – about 15 days per year slower than the growth in overall life expectancy. The gap between the growth rates is larger than the average gap among the other 14 countries with the highest healthy life expectancy (about 10 days). This indicates that Israel may need to consider ways to improve the overall health, well-being and high-level functioning of its citizens, in addition to already providing life extending medical care.

## Average healthy life expectancy growth rate in months per year, 1990-2015; and healthy life expectancy, 2015

Top 15 countries in terms of 2015 healthy life expectancy



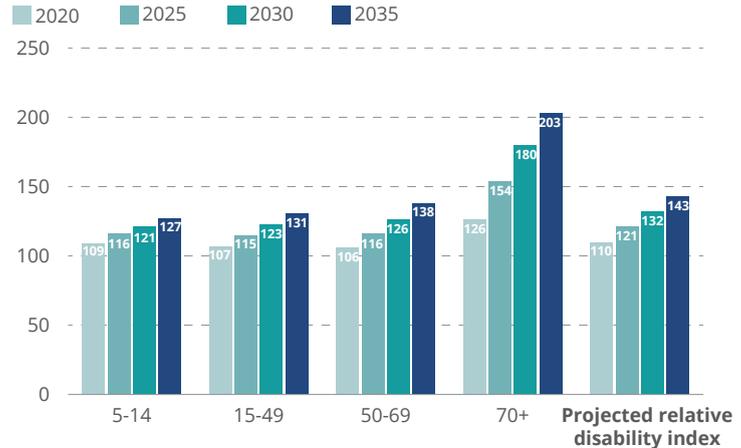
Source: Liora Bowers and Dov Chernichovsky, Taub Center  
Data: Institute for Health Metrics and Evaluation

# The portion of senior citizens is expected to increase

Israel's population is expected to age substantially in the coming decades. The number of elderly (70+) is expected to double from about 610,000 today to about 1.24 million by 2035, while the rest of the population is projected to grow by about 31% (based on an assumption of falling fertility). Consequently, the disability level, which by nature is higher among the elderly, is expected to grow by 43%.

While the increased life expectancy among Israelis is a welcome development, it requires better preparation for the aging population's healthcare needs. Illness and functional impairment drive a growing need for in-home care, as well as inpatient nursing homes. The changing ratio between the age groups is expected to increase the burden on the health system and to exacerbate the challenges related to caring for one's parents, as presented in the following pages.

**Projected indices, different age groups and total functional impairment-adjusted life years 2015=100**



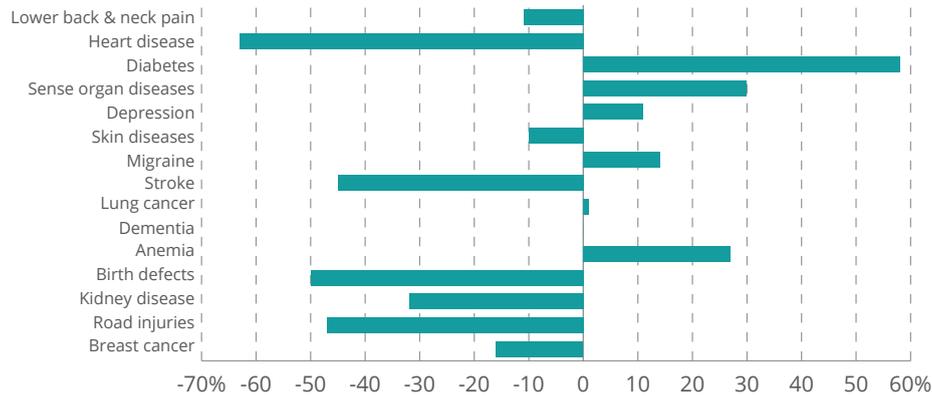
Source: Dov Chernichovsky and Haim Bleikh, Taub Center  
Data: CBS, Projections of Israel's Population Until 2035, Table 10

# The fastest growing health issue in Israel is diabetes

In Israel, from 1990 to 2015, there was a 17% reduction in the total per person burden of disease, largely due to Israel's growing life expectancy. There has been a major shift in the main sources of the burden of disease, shown in the figure in decreasing order of the overall disease burden caused by that condition in 2015. Conditions that have seen notable increases in the rate of disease burden over the last two and a half decades are diabetes, sense organ diseases (e.g., hearing and vision impairments), migraines, and anemia, with the burden from diabetes growing by almost 60% during this period. There has been a 58% reduction in the combined burden of heart disease and strokes — a phenomenon seen globally — due to both better treatment options and better management of risk factors, such as cholesterol and high blood pressure.

## Change in total disease burden between 1990 and 2015

15 leading causes

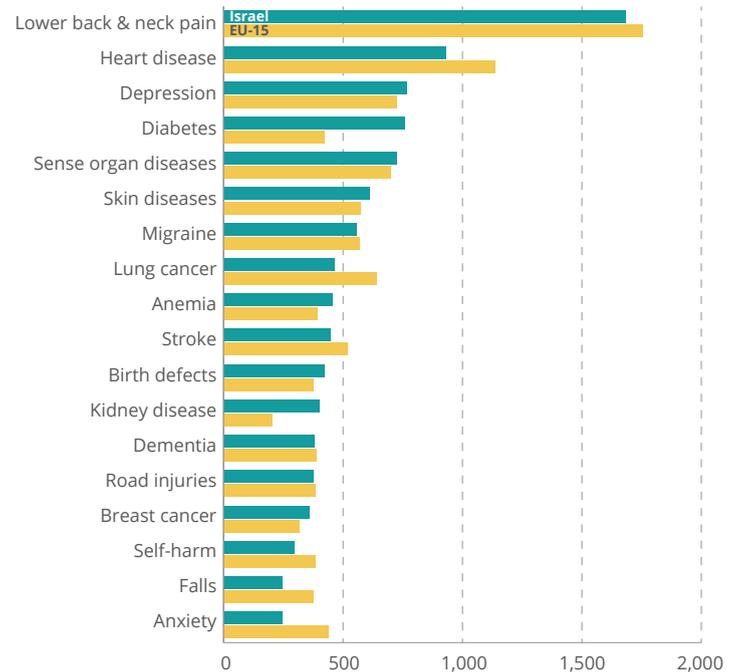


Source: Liora Bowers and  
Dov Chernichovsky,  
Taub Center  
Data: Institute of Health  
Metrics and Evaluation

# Israelis are healthier than Europeans overall, but not across all diseases

Overall, Israel's population is slightly healthier than that of the leading European nations (EU-15), even after controlling for its younger age distribution. Israel has significantly lower rates of heart disease and lung cancer due to substantially lower smoking rates. However, Israel is in a dire situation with regard to diabetes, where it has a nearly 90% higher disease burden on an age-adjusted basis, particularly among lower-income populations. The risk factors for diabetes – poor kidney functioning, high blood sugar and high body mass – are also notably more problematic in Israel than in the EU-15. Kidney disease, anemia, birth defects, and depression similarly have a higher burden in Israel. The same holds for breast cancer, possibly due to the prevalence of a gene linked to breast cancer among Ashkenazi Jews.

**Age-standardized disease burden, 2015**  
Per 100,000 population



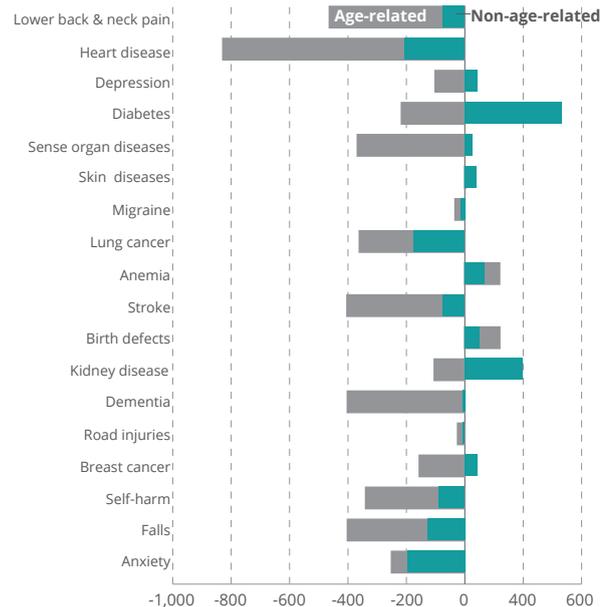
Source: Liora Bowers and Dov Chernichovsky, Taub Center  
Data: Institute for Health Metrics and Evaluation

# Israel's younger average age means a lower disease burden, but the country must prepare as the population ages

The differences in disease burden between Israel and Western Europe can be disaggregated into the portion attributable to differences in the population age structure (age-related) and the portion that is due to the prevalence, management or treatment of the particular condition itself (non-age-related). This allows one to focus on the areas in which Israel is relatively weak, and on the steps the healthcare system should prioritize as the population ages. As shown, for most diseases the younger average age in Israel works substantially in its favor, but much of this advantage is temporary as Israel's population ages over time.

## Change in disease burden between Israel and the EU-15, 2015

Estimate of the number of functional years lost per 100,000 population

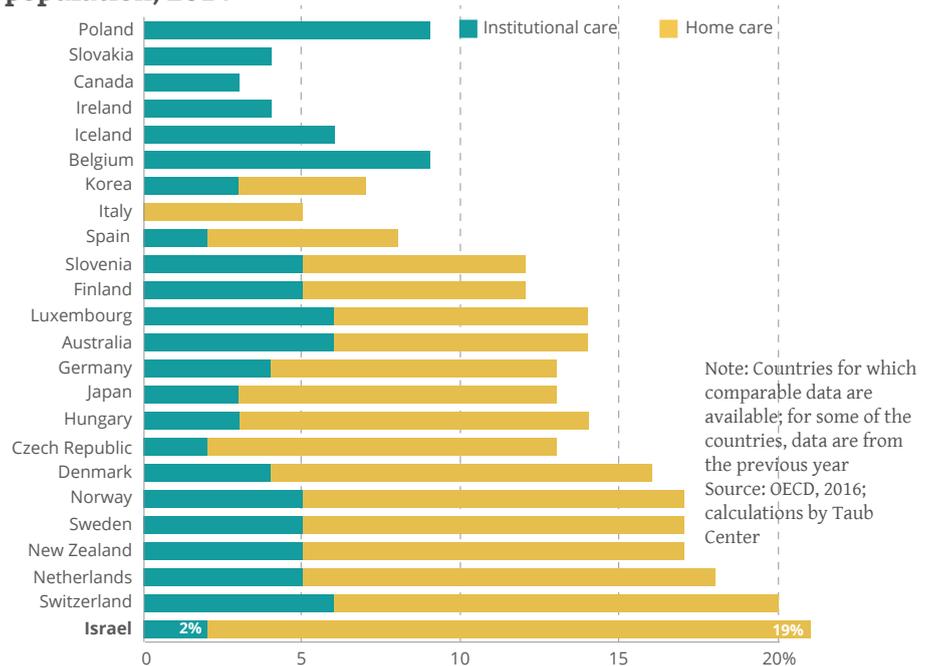


Source: Liora Bowers and Dov Chernichovsky, Taub Center  
Data: Institute for Health Metrics and Evaluation

# Israel's elderly are more likely to be cared for at home rather than in institutions

Israel stands out in the share of home-based care for individuals aged 65 and older: about 19% versus 9% on average for the OECD countries for which data are available. This figure may indicate a greater commitment to caring for Israel's elderly at home, but it could also reflect the relatively limited options and access to institutional care available in the country. When care is delivered in the home, a large share of the financial burden falls on families — whether by paying for care or by missing work days to care for their elderly family members. This reliance on households furthers inequality between families at different income levels; households that are unable to afford long-term care at home or in assisted living facilities must bear the time burden on their own. The financial consequences are presented in the next graph.

**Long-term care service consumers as a percentage of the 65 and over population, 2014**

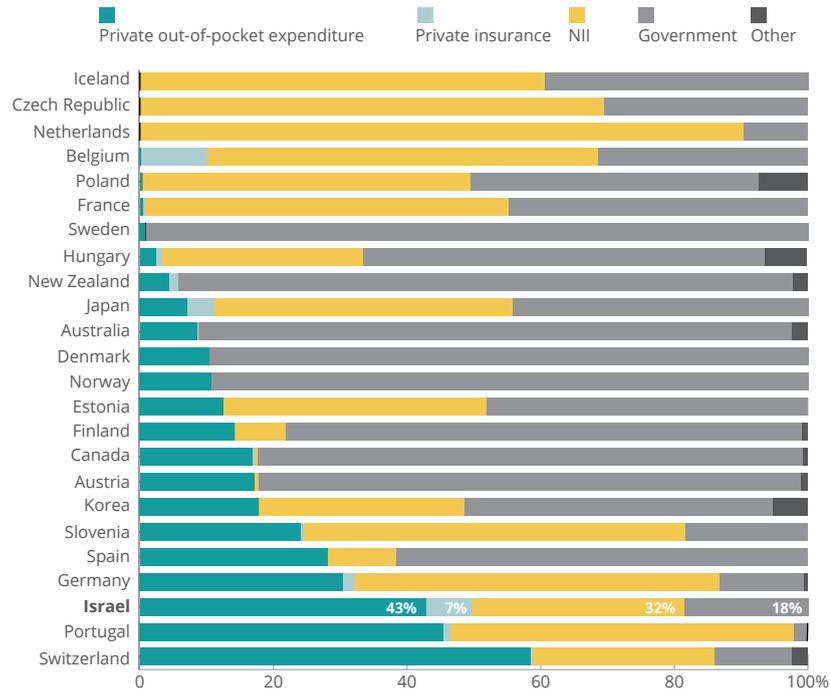


# In Israel, a greater share of the burden of caring for the elderly falls on households than in most OECD countries

The relatively heavy financial burden on Israeli households is seen clearly when considering the breakdown of funding sources for long-term care of the elderly. A prominent characteristic in Israel's long-term care system is the relatively high share of private expenditure on care; at nearly 45%, it is almost triple that of the OECD average of 16%. The data show that nearly all countries with social service funding structures similar to Israel's chose publicly-oriented solutions, combining compulsory insurance payments with public funding, thereby enabling an equitable universal long-term care system. The current system is one of the sources of inequalities in healthcare provision between those of differing means.

Note: Countries with comparable data  
 Source: Chernichovsky, Kaplan, Regev, and Stessman, Taub Center | Data: OECD, 2010; BOI, 2012

**Expenditure on long-term care by funding source, 2010-2011**



# Private health insurance has become more prevalent, and is another growing source of inequality in healthcare provision

Over a fairly short period, the percentage of Israelis who purchase their health fund's supplementary insurance grew from 50% to 80%, with only the poorest not allowing themselves this expenditure. Commercial insurance is less common than the health fund supplementary insurance, although more than 40% of the population purchases it. At least some of these private expenditures are superfluous, and stem from private insurance companies seizing on the risk aversion of consumers, and selling policies for treatments for which consumers are already insured.

One of the main benefits of the commercial insurance plans is significantly shorter waiting times for medical treatments, and, as we shall see later in this section, there are often long waiting times in the national health fund system. Thus, wealthier citizens are able not only to choose their doctor, but also to have medical procedures carried out in a far more timely fashion.

Share of population with supplementary and/or commercial health insurance

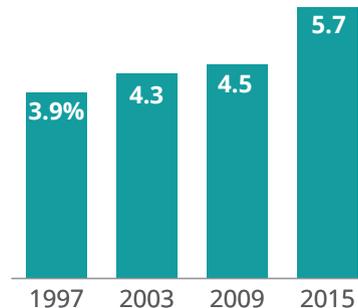


Source: Liora Bowers and Dov Chernichovsky, Taub Center  
Data: The National Institute for Health Policy and Health Services Research

## Increase in private health expenditures, some likely unnecessary

Both public and private expenditures on healthcare have been increasing in real terms, at least partially because of the rising share of the elderly in the Israeli population. Private expenditures have risen at a faster rate than public expenditures, going from 3.9% of disposable income to 5.7% in less than two decades. Much of this change stems from an increased prevalence of private insurance purchases, as shown on the previous page.

**Rate of private expenditure on healthcare  
out of disposable income, 2015**

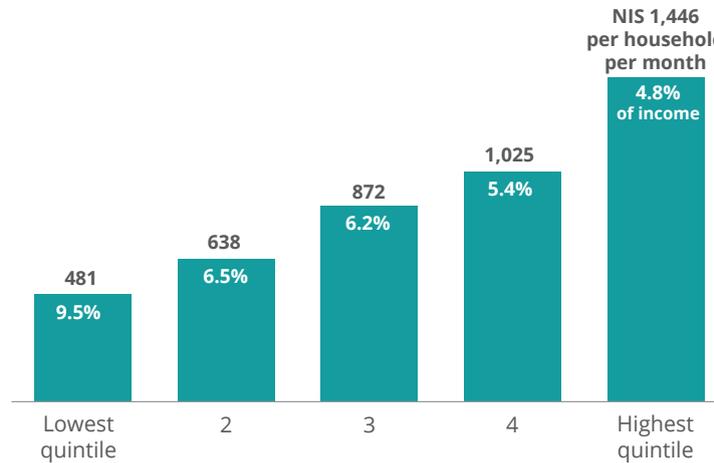


Source: Original data by Guy Navon and Dov Chernichovsky, Taub Center; updated by Haim Bleikh, Taub Center  
Data: CBS, Expenditure Survey

## Although private healthcare expenditure increases with income, it decreases as a percentage of income

Expenditure on healthcare increases sharply with income, with the highest income quintile spending more than triple the amount spent by the lowest quintile. However the percentage increase in expenditure is lower than the percentage increase in income, so the share of income spent on healthcare decreases as income rises. Thus, while the average expenditure in the highest quintile is 4.8% of income, it is 9.5% for the lowest quintile. This higher share of income spent on healthcare places a greater financial burden on lower income families, and, in addition, the lower sum they spend on healthcare does not allow them to purchase the same amount of insurance, placing them at a disadvantage in receiving high-quality medical care.

**Total expenditure on healthcare by income quintiles, 2015**



Note: Household income quintile is calculated by monetary disposable income per standardized person  
Source: Dov Chernichovsky, Haim Bleikh and Eitan Regev, Taub Center  
Data: CBS, Expenditure Survey

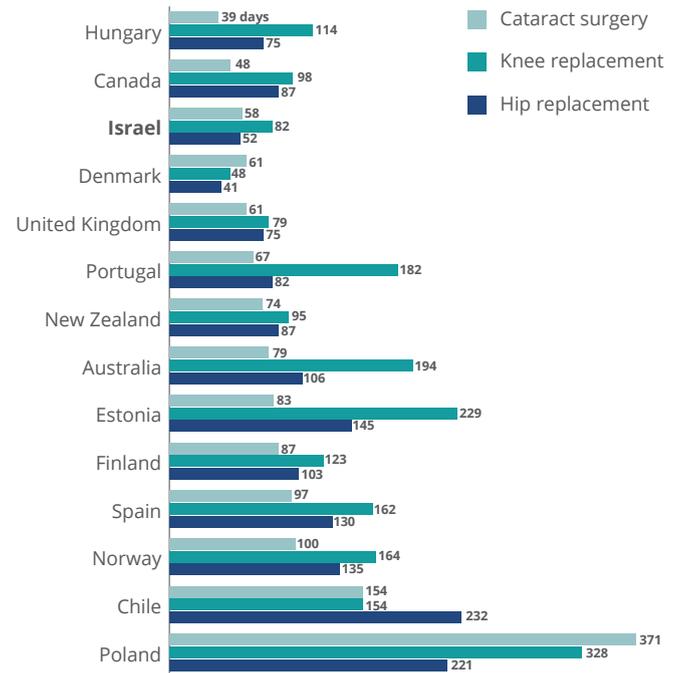
# Median waiting times for elective surgery in Israel seem relatively short compared to other OECD countries

The Ministry of Health took an important step toward improved transparency in 2013, requiring public hospitals to report waiting times for elective procedures. The data available for international comparisons of waiting times are limited, and thus broad generalizations on the topic must be qualified. From the available data, waiting times in Israel seem short relative to other OECD countries. Israel has the third shortest median waiting time for cataract surgery and knee replacement, and the second shortest for hip replacement.

There are two important caveats. First, there may be a self-selection bias, with only those countries that have placed this issue on their agendas (perhaps those with the biggest problems) reporting waiting times. Second, the data may not be completely comparable as the clock starts ticking in other countries from the time of the doctor's referral, while in Israel, data are available only from the time surgery is scheduled.

Source: Liora Bowers and Dov Chernichovsky, Taub Center  
Data: OECD, 2015

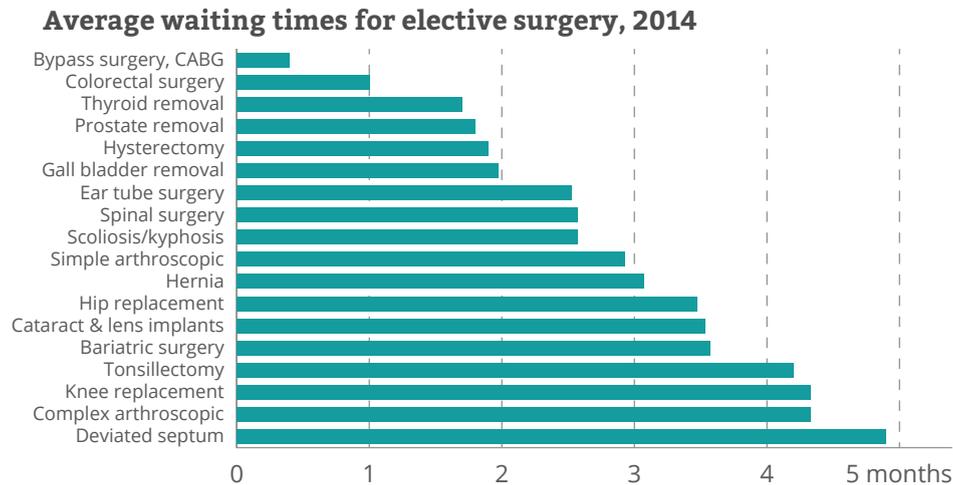
Median waiting times for elective surgery, 2013/14



# Waiting times for elective surgery vary greatly across procedures and hospitals

Average waiting times for elective surgery vary greatly by procedure, ranging from 12 days for coronary bypass surgery (which can be an urgent procedure) to 147 days for a deviated septum surgery.

Among hospitals, too, there is a large disparity in waiting times for the same procedure. For example, there is more than a year difference in waiting times for knee replacement, tonsillectomy and deviated septum surgery among hospitals.



Notes: Data are from 27 hospitals. Some hospitals do not perform all of the procedures listed. Spinal surgery – not including scoliosis/kyphosis; simple arthroscopic surgery – shoulder/knee; complex arthroscopic surgery – shoulder/knee.

Source: Liora Bowers and Dov Chernichovsky, Taub Center | Data: Ministry of Health

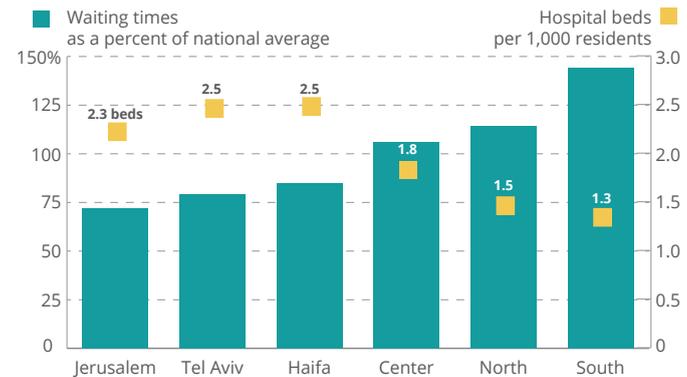
# Fewer hospital beds, doctors, and healthcare professionals in the periphery, as well as longer waiting times

Data show that the large metropolitan areas have the shortest waiting times, while the periphery has the longest waits. The median wait for elective surgery in the South is twice that in Jerusalem. The longer wait aligns with other disparities in healthcare resources in the periphery, long discussed in public discourse. For instance, as seen in the graph, there is a negative correlation between the supply of hospital beds and waiting times for elective procedures.

In 2013, the supply of physicians in the North was about two-thirds that in other parts of the country: 2.2 physicians per 1,000 residents versus 3.2 or more in the other regions. The supply of other healthcare professionals (e.g., pharmacists, physiotherapists, occupational therapists) in both North and South was half that of other regions: 2.1 and 2.2, respectively, versus 4.0 or more elsewhere.

As a rule, there is a strong sense among healthcare leaders that there are two distinct groups of patients: 1) privileged Israelis, with personal connections, financial resources, persistence, and transportation flexibility, who can access care quickly; and 2) more vulnerable populations that do not have these resources and capabilities, and often face very long waits with few alternatives.

Waiting times and hospital beds by district, 2014



Notes: For 18 elective procedures. Includes 27 public hospitals. Not all procedures are available in all hospitals.

Source: Liora Bowers and Dov Chernichovsky, Taub Center

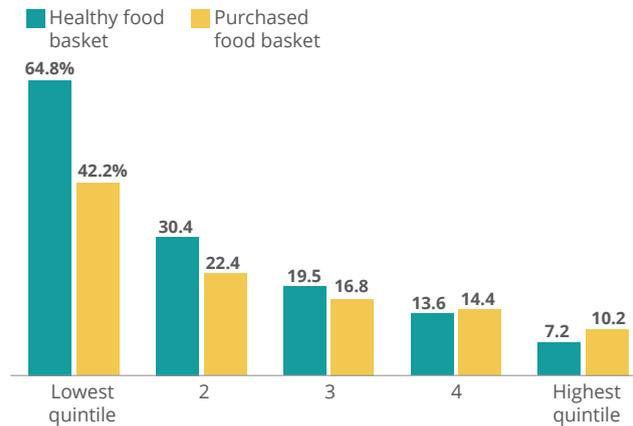
Data: Ministry of Health, 2014; Clalit Health Services, 2015; CBS, 2015

# The cost of eating healthy is exorbitant for low income families

An important factor in maintaining good health is a healthy diet. In Israel, the Ministry of Health recommends the Mediterranean diet, which is rich in vegetables, fruits and whole grains, and low on animal proteins. Estimating the cost of such a healthy diet, and taking into account sizes and age distributions of families in the different income quintiles of the populations, it was found that an average

family in the lowest quintile would need to spend 65% of its income on food in order to eat healthy. In practice, they spend 42%, meaning that these families, while still spending a substantial portion of their income on food, are either cutting back on the quality or on the quantity of the foods they eat. The highest quintile need only spend 7% of their income to eat healthy food, a sum they easily afford.

**Household expenditure on food as a percent of income, 2014**



Source: Janetta Azarieva, Ben Orion, Rebecca Goldsmith, Avidor Ginsberg, Ran Milman, and Dov Chernichovsky, Taub Center  
Data: CBS, Expenditure Survey 2014



# Education

## Improvement Shown

As shown on page 28, the education budget has increased to 11% of the government's budget from 9% just a few years ago. This increase was accompanied by a number of positive developments: teacher salaries have increased significantly, both the quantity and the quality of teachers have increased significantly, and class sizes have decreased. In real terms, the expenditure per pupil has increased by about 35% since the turn of the century.

In what follows, we work from the bottom up, starting with changes in pre-kindergarten expenditures following the “stroller protest” in 2011 and continuing on through grade school. In a special section, we discuss enrollment and outcomes in higher education, focusing on the Haredi population.

# The “stroller protest” — the disproportional increase in the private cost of preschool

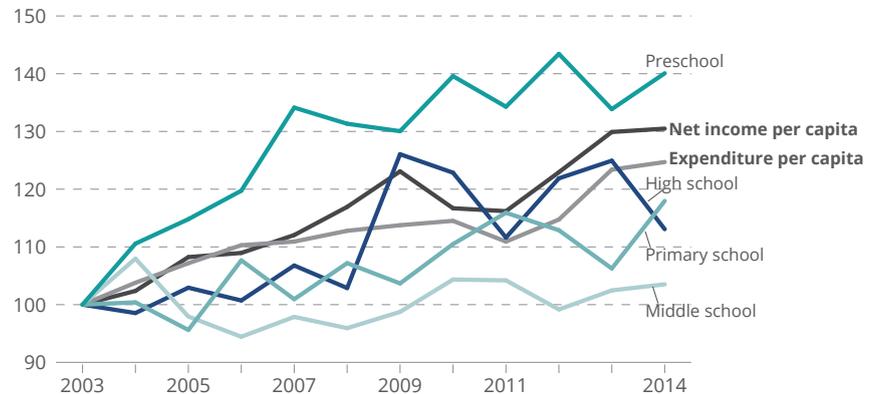
Among the most central issues raised in the 2011 social protests in Israel was what was termed the “stroller protest.” It called attention to the high private cost of pre-kindergarten, which rendered it unprofitable for many mothers to return to the workforce. This cost rose by 40% from 2003 to 2010, a rise unparalleled in the rest of the education system, far exceeding the increase in household income or expenditures. The Trajtenberg Committee, established in response to the protests, addressed the issue, resulting in implementation of the Compulsory Education Law for all 3-4-year-olds.

While private expenditures on 3-4-year-olds fell, an undesired consequence was that the expenditure on daycare for 2-year-olds increased, at least partially due to the rise in

demand resulting from the increase in disposable income of parents who previously had to pay for 3-4-year-

olds’ education. As a result, the average private expenditure on pre-school for 2-5-year-olds fell by only 3%.

## Indices of real income and per person expenditures on education 2003=100



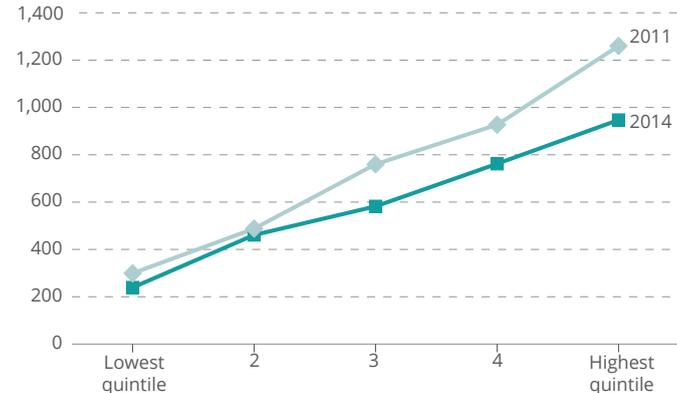
Note: Per person monetary expenditure among households with children ages 2-5 attending preschool  
 Source: Kyrill Shragerman and Nachum Blass, Taub Center  
 Data: CBS, Expenditure Survey

# The benefits from free education for 3-4-year-olds felt mainly by middle and upper class households

The main beneficiaries from the universal implementation of free pre-kindergarten education were middle and upper class households, and not those in the two bottom income quintiles. This is because pre-kindergarten subsidies were already in place for most lower-income families.

The effect of universal implementation of free pre-kindergarten education for 3-4-year-olds was an increase in enrollment among the Jewish population from 80% to 89% and among the Arab Israeli population from 68% to 79%. In addition, while the total expenditure per pupil on preschool (ages 2-5) as a percentage of GDP per capita did not change substantially, the portion paid privately fell from 21% in 2011 to 11% in 2013.

**Monthly expenditure per child ages 3-4 on public preschool education**  
2014 prices, NIS



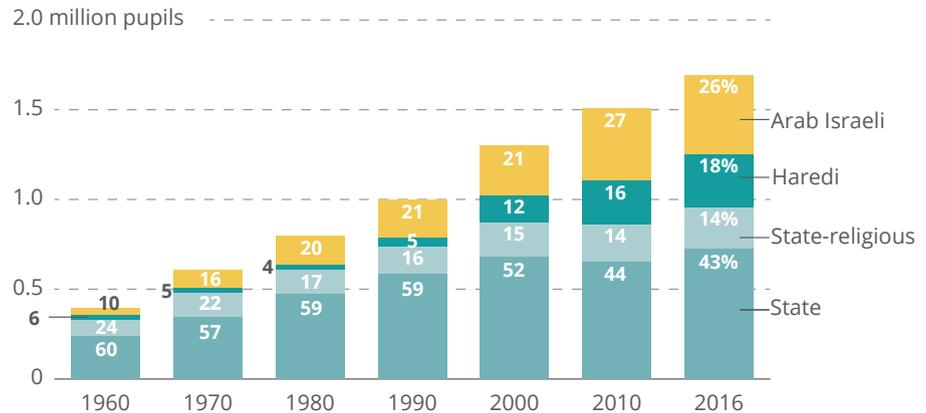
Note: Per standard person. Consumption quintiles for households with children ages 2-5 attending preschool.  
Source: Kyrill Shraberman and Nachum Blass, Taub Center  
Data: CBS, Expenditure Survey

# The number of pupils is increasing, but at vastly different rates in each of the four education systems

Since 1960, there have been significant demographic changes in the Israeli education system population. The share of pupils in the Haredi and Arab Israeli systems have increased dramatically: from 16% to 44% collectively. These changes, though, have not always been reflected in budgeting of teaching hours and physical infrastructure, nor in adaptation of the education program or in the diversity of the leadership. The lack of adjustments has at times led to feelings of discrimination and exclusion, and has made it difficult for the education system to be viewed as a unifying authority in Israeli society. The past few years have seen simultaneous processes in the Arab Israeli population of falling fertility rates and education rates that have reached their maximum. This has

lowered the share of the Arab Israeli stream in the overall education system. At the same time, there has also been a slowdown in the rate of growth of the Haredi stream (as demonstrated on the next page), even though their fertility rates have not changed.

**Pupil population and education stream**

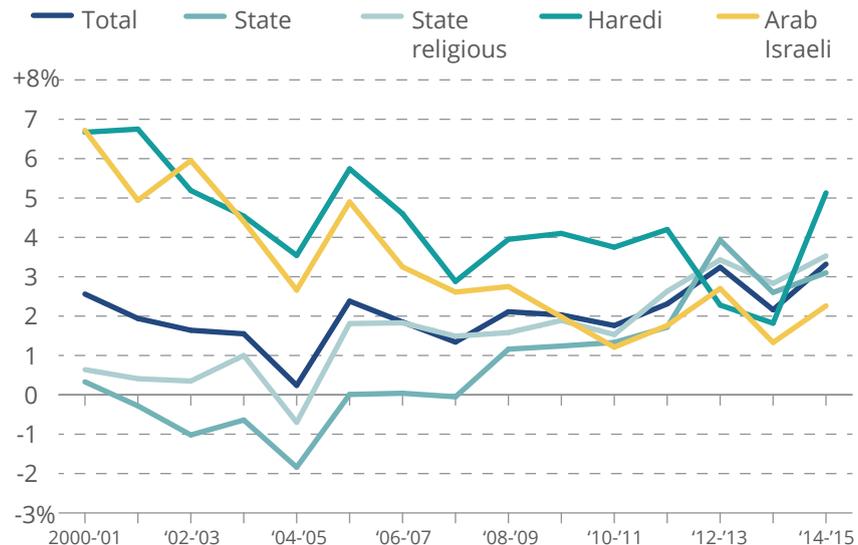


Source: Nachum Blass and Haim Bleikh, Taub Center  
Data: CBS

# Growth rates in the number of pupils in the different education streams are converging

The pupil growth rates in the four main education streams has been rapidly converging. Haredi schools are still growing faster than the other streams, but the other three groups are now very similar to each other. Interestingly, the State schools are growing at a rate very close to the average in the country, meaning that, if these trends continue, they should stop losing share. The number of pupils in the Arab Israeli education sector, on the other hand, is now growing at a slower pace than the rest of the education streams, meaning that their share in the school system may continue to fall.

Annual pupil growth rate in the education system



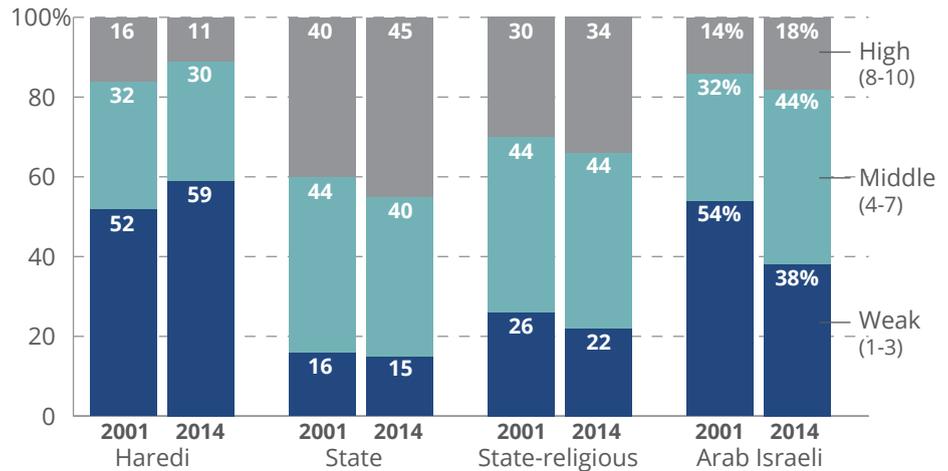
Source: Nachum Blass and Haim Bleikh, Taub Center  
Data: Ministry of Education

## Socioeconomic improvement in the Arab Israeli sector but deterioration in the Haredi sector

Between 2001 and 2014, there were broad changes in the socioeconomic status of pupils in the various educational streams. The figure shows the percentage of students in each sector divided into three socioeconomic groups: those who are in families in the lowest 3 socioeconomic deciles, the middle 4 deciles and the top 3 deciles.

While the share of the poor in the Haredi sector continued to grow, in the Arab Israeli sector it fell dramatically. In the State and State-religious streams there was a slight rise in the portion of pupils from middle and upper socioeconomic groups and a small reduction in the share of the poor.

**Distribution of pupils by socioeconomic status**



Source: Nachum Blass, Taub Center  
Data: Ministry of Education, Pupil Database

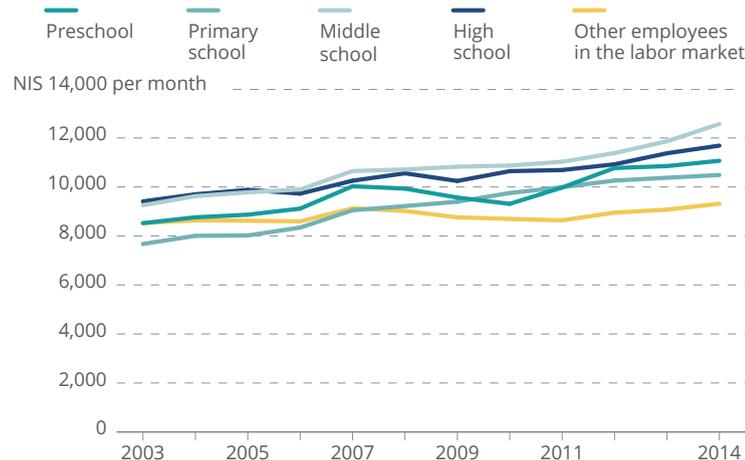
# Teacher salaries rose significantly over the past decade, and now surpass the average salary substantially

Between 2003 and 2014, employee wages rose moderately by about 9%. At the same time, teacher salaries increased substantially. In primary education, wages rose by 37%, mainly due to the signing of the Ofek Hadash wage agreement. In middle schools wages rose by 36%. In high schools they rose by 24%, mostly since 2011, the time of the signing of the Oz LeTmurah wage agreement.

Today, teacher wages at all levels of formal education are substantially higher than the average wage. However, the picture changes when teachers' salaries are compared to those of other workers with academic degrees. In these groups, male teachers still earned considerably less than their peers (a difference of 27% in 2013), while women earned 13% more than other degree holders.

The increase in wages has apparently led to an increase in the quality of teachers, as shown on the next page.

**Average monthly wages for teachers and others in the labor market, 2014 prices**



Source: Nachum Blass, Taub Center  
Data: CBS, Trends in Teacher Wages 2003-2014

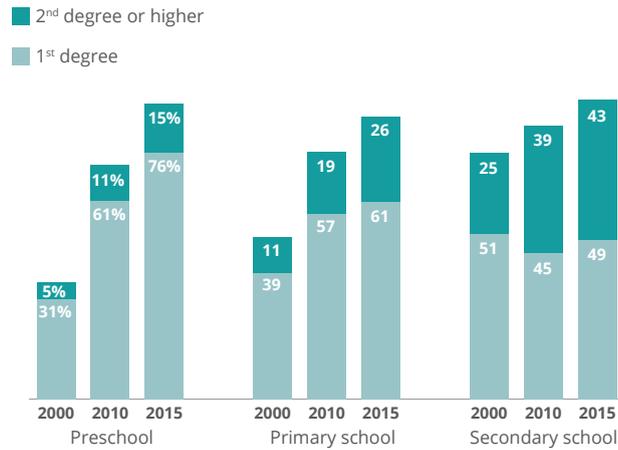
## A large improvement in teachers' academic credentials

Since 2000, there has been a substantial improvement in the education level of teachers at all school system levels. The greatest improvement occurred at the preschool level. In 2000, very few preschool teachers had an academic degree, while in 2015, more than 90% had one.

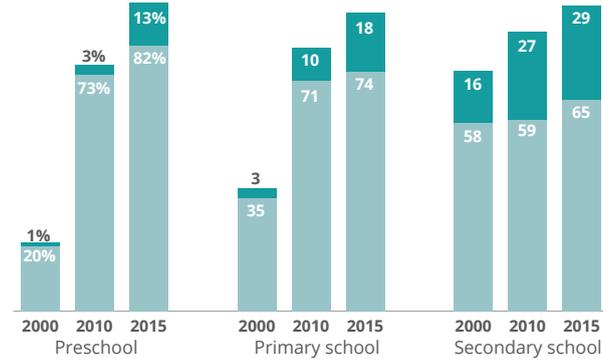
The most noteworthy improvement was in the Arab Israeli sector, in both preschool and primary education. In 2015, the share of teachers in the Arab Israeli sector with an academic degree was greater than their share in the Jewish education sector at all school levels. To a large extent, the improvement is due to an upgrade of teaching seminars to BA programs. As a result, the share of those with a first degree increased more among younger teachers than among older teachers.

## Share of teachers with academic degree

### Jewish teachers out of all teachers



### Arab Israeli teachers out of all teachers

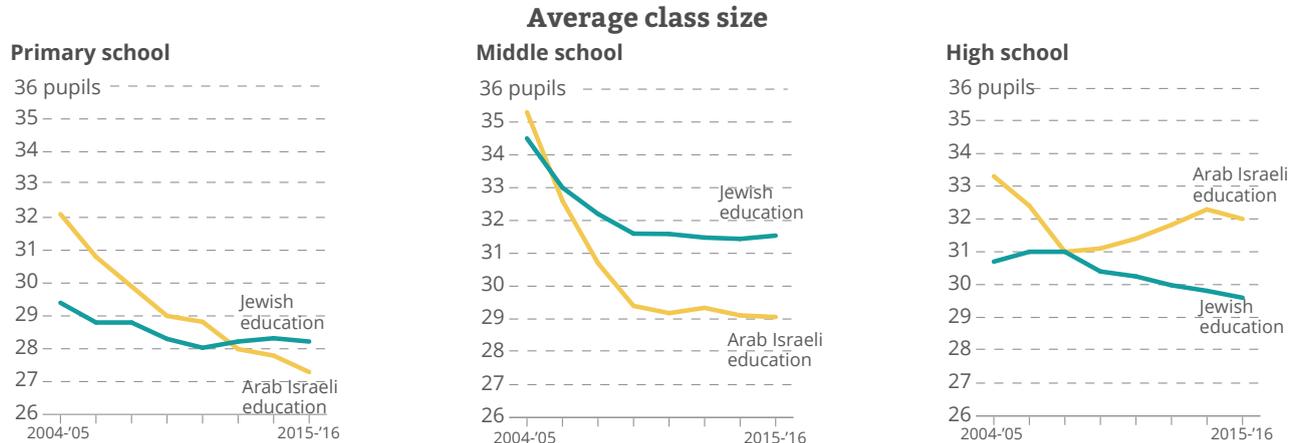


Source: David Ma'agan, CBS  
Data: CBS

# Class sizes have been falling faster in the Arab Israeli sector than in the Jewish sector

Class size is influenced primarily by administrative decisions regarding the maximum class size and demographic developments. In 2007, the government decided to reduce the maximum number of pupils per class from 40 to 32. Implementation was intended to bring about a reduction in the average class size by 20%. In practice, the reduction was far smaller. In the Jewish education stream, the reduction

rate was 4% in primary schools, 9% in middle schools, and 4% in high schools. In the Arab Israeli system, the rates were 18%, 21% and 4%, respectively (since classes were larger to begin with). The government's decision was only partially implemented. It is not altogether clear, though, that class size has an impact on scholastic achievements, as shown on the next page.



Source: Nachum Blass, Taub Center | Data: Ministry of Education, Economics and Budgeting Administration

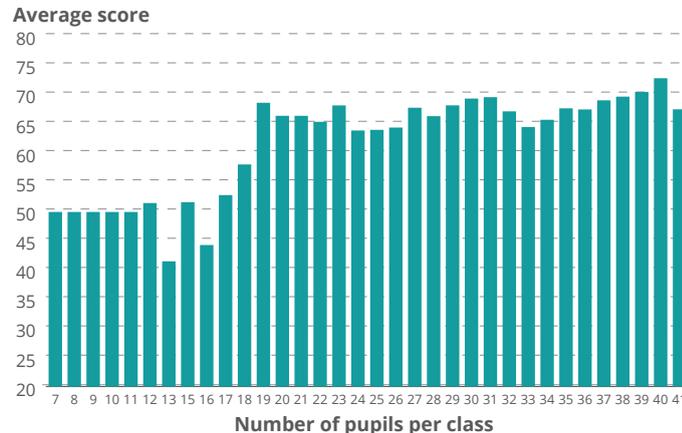
## Class size seems not to affect grades

Analysis of the average grades in the eighth-grade Meitzav test in Hebrew based on class size demonstrates that there are two distinct groups – classes with up to 18 pupils, and those with 19 or more pupils. At first glance, it seems that scores are lower in smaller classes, however, these tend to be “special needs” classes, and are not really comparable to the larger classes. Looking only at the larger classes, we see no effect of class size on educational achievement. Controlling for pupil and class characteristics as well as pupil prior achievements on the fifth-grade Meitzav tests does not change the results of this finding.

Two important caveats. First, the result refers to eighth-grade test scores only, and does not guarantee that the same is true for, say, first graders.

Second, while grades might not depend on class size, the classroom experience could certainly be affected, a factor that may be no less important than academic outcomes.

**Average score in language arts (Hebrew), 2009**



Note: Moving average of three consecutive class sizes  
Source: Reut Shafir, Yossi Shavit and Carmel Blank, Taub Center  
Data: Meitzav, 2009





# Education Spotlight

## Haredim in Higher Education

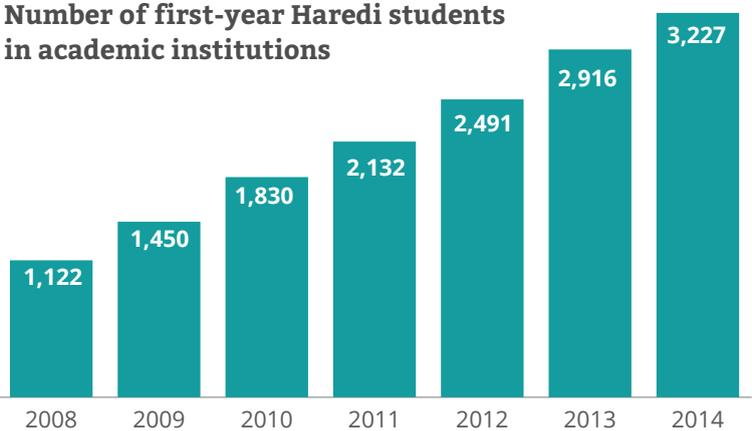
In recent years there has been a sharp increase in the number of Haredim attending institutions of higher education. Continuation of this trend could have significant effects on the Haredi community and on the entire economy; if a significant number of Haredim receive higher education and join the work force in high-paying jobs, this could lead to decreases in poverty and inequality, and could be a significant source of growth. This, however, depends not only on their studying, but also on their succeeding in those studies; only then would the successful individuals become role models who could influence additional young Haredi men and women to do the same.

In the following pages, we will show that while Haredi women, who comprise about two-thirds of the Haredi higher education attendees, are doing relatively well, the same is not true for the men who tend to drop out of their studies in greater numbers. In addition, the reported number of Haredim in higher education may be inflated due to the inclusion of individuals who are not Haredim but who studied in Haredi institutions (National Religious under Haredi supervision). Without a significant improvement in Haredi formal educational achievements, the Haredi population is likely to face monumental difficulties in improving their economic circumstances and reducing the high levels of poverty within their communities.

# The number of Haredim enrolling in higher education has nearly tripled in six years

The past few years have seen a rise in the number of Haredim enrolling in higher education. Between 2008 and 2014 the number nearly tripled: from 1,122 to 3,227. Among them, nearly two-thirds are women and only a third men. In 2014, about 1,600 Haredi women and 450 Haredi men successfully completed their BA studies — as opposed to about 650 women and 200 men in 2012.

Despite this substantial increase, the share of first degree holders among young Haredim (particularly men) is still quite low. As of 2014, only about 2.5% of Haredi men and about 8% of Haredi women in the 25-35-year-old age group held a first degree versus 28% of secular Jewish men and 43% of secular Jewish women. This is the result of low rates of academic enrollment in the past as well as high dropout rates, as presented below.

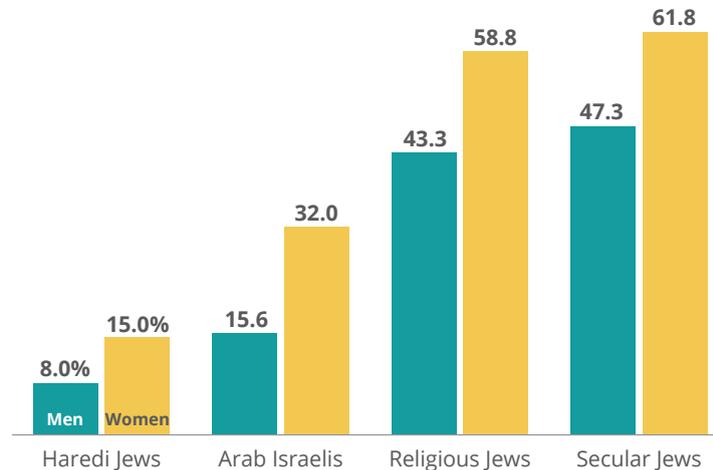


Source: Eitan Regev, Taub Center  
Data: CBS, unified database of multiple administrative datasets

## The share of young adult Haredim in higher education is still quite small

Despite the impressive rise in the number of Haredi students, the share of young Haredim (ages 25-35) who are studying or have studied for a first degree is still substantially lower than in other sectors (8% of Haredi men and 15% of Haredi women). Arab Israelis are studying at rates that are roughly double those of the Haredim, and the National Religious and secular study at similar rates. The share of women entering academic studies is higher than the share of men – a finding that is not surprising given that they rate of bagrut qualification is higher for women.

**Share of young adults (ages 25-35) who studied or are studying for a first degree, 2014**



Source: Eitan Regev, Taub Center  
Data: CBS, unified database of  
multiple administrative datasets

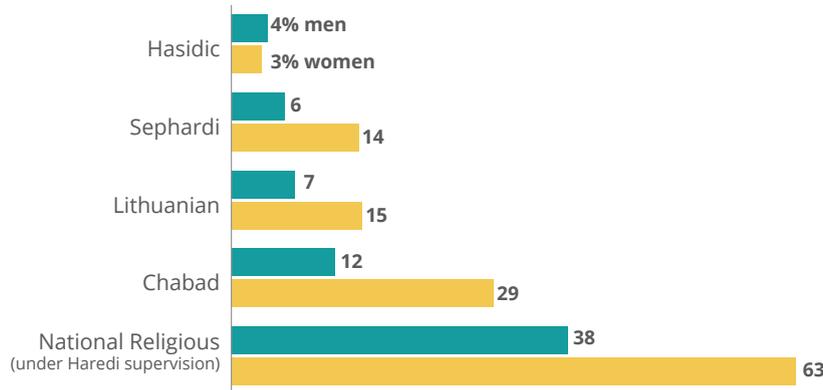
# The number of Haredim in higher education is actually overstated

When the Haredi sector is segmented by streams, it turns out that a small portion (5%) are essentially National Religious. Despite their small share, the portion among them studying for an academic degree is substantially higher than the share of those studying in the 4 major Haredi streams. This finding implies that the measured share of Haredim in higher education is upwardly biased. Removing the National Religious stream from the data, the percent of Haredi men

studying is only 6% (versus 8% when not controlled for), and among women, it is 12% (versus 15%).

Upon closer examination of the disaggregated data, the Lithuanian and Sephardi Haredim are quite similar in their higher education patterns. The highest rates of study are among Chabad men and women, and the lowest (by a substantial amount) are in the Hasidic sector (not including Chabad).

**Percent of Haredim studying for a degree, 2014**



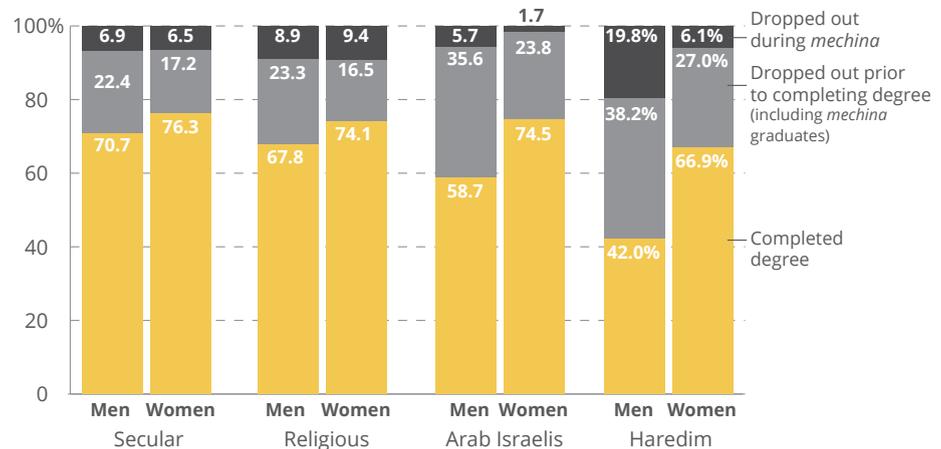
Source: Eitan Regev, Taub Center  
Data: CBS, unified database of multiple administrative datasets

## Dropout rates are particularly high for Haredi men

In order to try to close the knowledge gap generated by differences in education levels, about 42% of Haredi men who enroll in academic education begin their studies in pre-academic programs (*mechina*), versus 13% of Haredi women and 22% of secular men. About half of them (20% of those enrolled in higher education) drop out at the *mechina* level. Of those who make it to higher education, another half drop out over the course of their academic studies. Thus, only 42% of Haredi men who begin their academic studies actually complete their degrees. When the National Religious group is controlled for, the adjusted dropout rate rises to 67%, versus 30% among non-Haredi Jewish men and 41% among Arab Israeli men.

For women, the adjusted dropout rate is 33% for Haredim versus about 25% in the other sectors. Hence, the dropout rate among women in all sectors is substantially lower than for men, especially among Haredim and Arab Israelis.

### Combined dropout rates from pre-academic and academic programs, 2005-2014



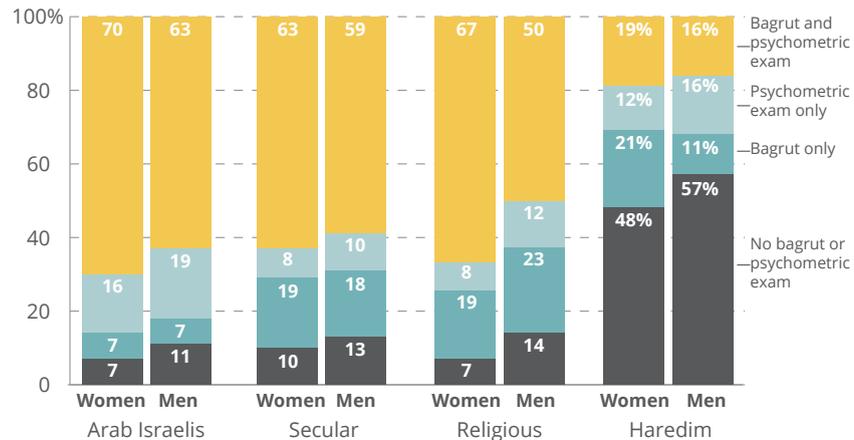
Source: Eitan Regev, Taub Center  
Data: CBS, unified database of multiple administrative datasets

## One of the main reasons for the high dropout rates: A lack of preparedness

Among men and women from all sectors, the dropout rate among those accepted to studies without a bagrut certificate (matriculation) or psychometric exam are the highest, and vice versa. It seems that the requirement of most academic institutions of minimum bagrut and psychometric scores is an effective selection tool, and reduces the likelihood of dropping out. Enrollment data show, though, that Haredi students do not face the same admissions requirements as others, and the majority of them are accepted without having completed the bagrut or taken the psychometric exam.

The bagrut data for Haredi women do not mean that they arrive unprepared for academic studies; a high percentage of them take a set of exams similar to a partial bagrut (Szold Institute exams).

**Distribution of students by their academic admissions characteristics, 2010-2014**



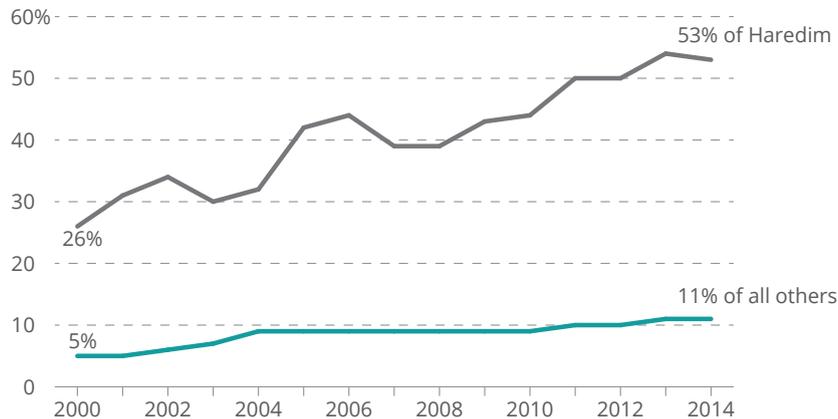
Source: Eitan Regev, Taub Center  
Data: CBS, unified database of multiple administrative datasets

## The portion of Haredim accepted to academic studies without a bagrut or psychometric exam is now over 50%

As shown in the figure, the majority of Haredi students are accepted to higher education without a bagrut or a psychometric exam. It appears, though, that this leniency is a relatively new phenomenon: the percentage has doubled since the start of the decade. The same is true in the other sectors as well, but the percentage has remained relatively small.

This rise is the result of the expansion of the higher education system. In order to attract more students, some of the new institutions, and particularly the Haredi campuses, have lowered their admissions requirements.

**Percent of students accepted to academic studies without bagrut or psychometric exam**



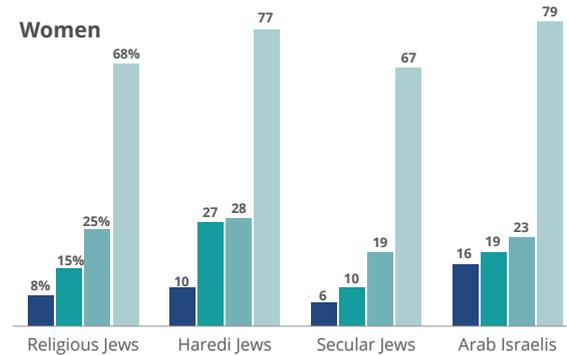
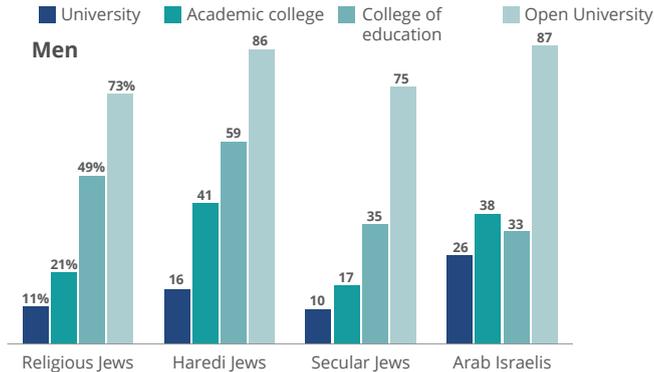
Source for this and next figure:  
Eitan Regev and Shirley Yarin,  
Taub Center  
Data: CBS, unified database of  
multiple administrative datasets

# The highest dropout rates are from the Open University; the lowest are from the other universities

Dropout rates from the Open University are high among students from all sectors due to a combination of high academic standards and open enrollment practices. The share of Haredi students in the Open University is higher than in other sectors, which contributes to their high dropout rate. Haredi student dropout rates are also high in colleges of education, although this is of less significance since only 10% of Haredi men study in these institutions.

The majority of Haredi students (54%) attend academic colleges, where their dropout rates are also substantially higher than those of students from other sectors (41% versus 20%, respectively). In contrast, in universities, the Haredi dropout rate is only 16% – similar to rates among other sectors (12%). This stems from the more rigid admissions requirements in universities, which serve to lessen the likelihood of dropping out. This is apparently also the reason that only 20% of Haredi students enroll in universities, versus 35% to 45% from the other sectors.

## Students who began studies before 2010 and ended before 2014 without earning a degree





# Labor Markets

## Stretching the Limits

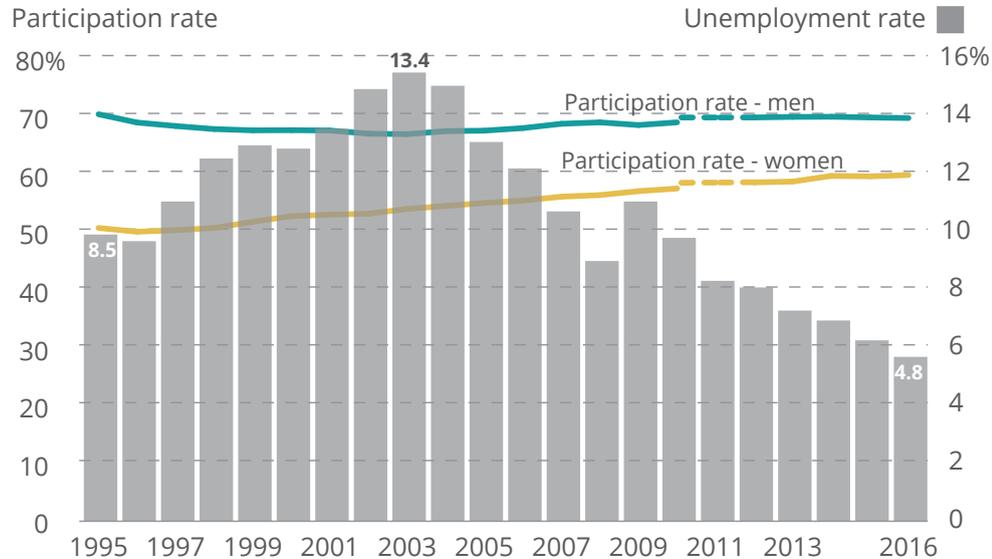
Israel has seen over a decade of rapid labor force participation expansion in all sectors: men, women, secular, Haredim, and Arab Israelis. While there is still some room for growth, it is nearing its limit, with only Haredi men and Arab Israeli women still lagging behind in participation rates. Real wages have also been on the rise over the past two years, but this is somewhat misleading; it seems to be the result of wages “catching up” to a steady increase in productivity from 2007 to 2014 that went unrewarded, and is not the result of an excess demand for labor. In this section, we look at the quantity and quality of the labor force. In the special Spotlight section we will delve into the gender wage gap in Israel and attempt to uncover its sources.

## **Increase in labor force participation rates and decrease in unemployment**

As noted in the introduction to this section, there has been significant growth in labor force participation for all population groups. The effect has been particularly strong for women, with similar changes being seen worldwide. For men, however, participation has fallen in most countries, while in Israel, men from all sectors have increased their employment levels. At the same time, unemployment rates have been falling, which indicates that the increase in the demand for workers has outstripped the increase in the supply. Some factors that appear to have contributed to the growth in labor force participation are cuts in child allowances (in 2003 and again in 2013) and the raising of the mandatory retirement age for civil servants.

As stated, while there is still room for increased labor force participation, among most population groups the expansion process is nearing its limit.

## Labor force participation and unemployment rates



Notes: Data for 2015 and 2016 are from the third-quarter average. Due to changes made in the Labor Force Survey, there is a break in the series in 2012.

The data are adjusted to the levels after the break.

Source: Gilad Brand and Avi Weiss, Taub Center

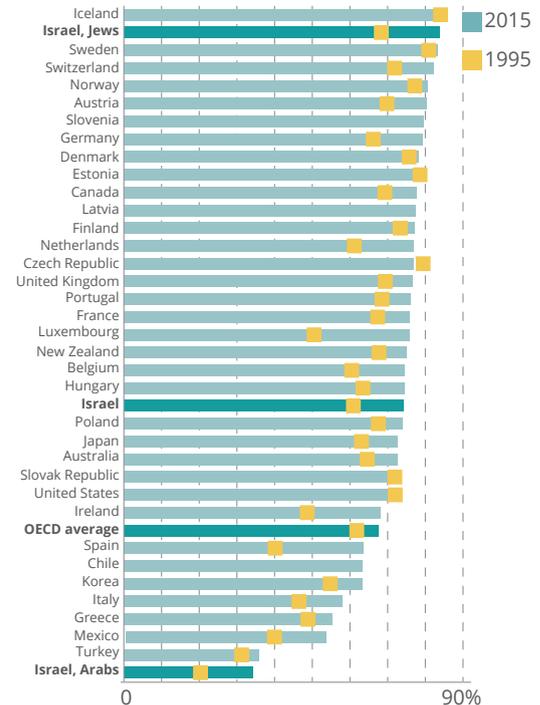
Data: BOI website

# Employment rates among Jewish women are the second highest among all OECD countries

Female employment rates are at an all-time high, reaching 74.3% in 2014 and retaining that level in 2015. This places Israel well above the OECD average of 67.4% in 2015. However, female employment is not evenly distributed throughout the population. The employment rate among Jewish women is higher than the rates in all but one OECD country in 2015. In contrast, Arab Israeli women work at a far lower rate – below those of all OECD countries.

Male employment rates still lag behind the OECD average, but the gap has been shrinking.

Employment rate for women ages 25-54



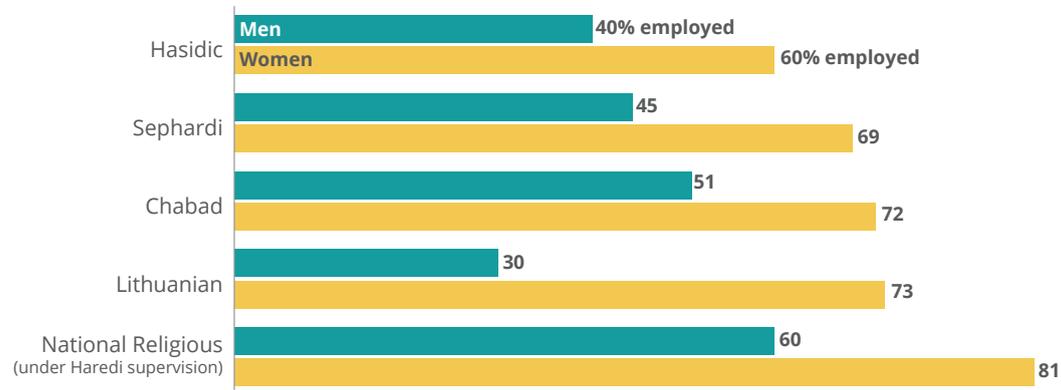
Note: 1995 data are for the civilian labor force only  
 Source: Hadas Fuchs, Taub Center  
 Data: OECD.Stat; CBS, Labor Force Survey

## In all Haredi streams, the employment rate of young men is lower than that of young women

Among young adults in all of the Haredi streams (ages 25-35), there are substantial differences between men and women in the division of labor. Among the Hasidic and Lithuanian streams, the average couple works one full-time employment position between them, although women tend to work more among the Lithuanian sect than among the Hasidim.

In the Sephardi and Chabad streams, both men and women work more, and are similar in their share of the burden. Unsurprisingly, National Religious who study in Haredi institutions have very different work patterns from other Haredim.

**Employment rates in Haredi streams among 25-35-year-olds, 2013**



Note: Data are current to 2013 and employment rates have risen since then

Source: Eitan Regev, Taub Center

Data: CBS, unified database of multiple administrative datasets

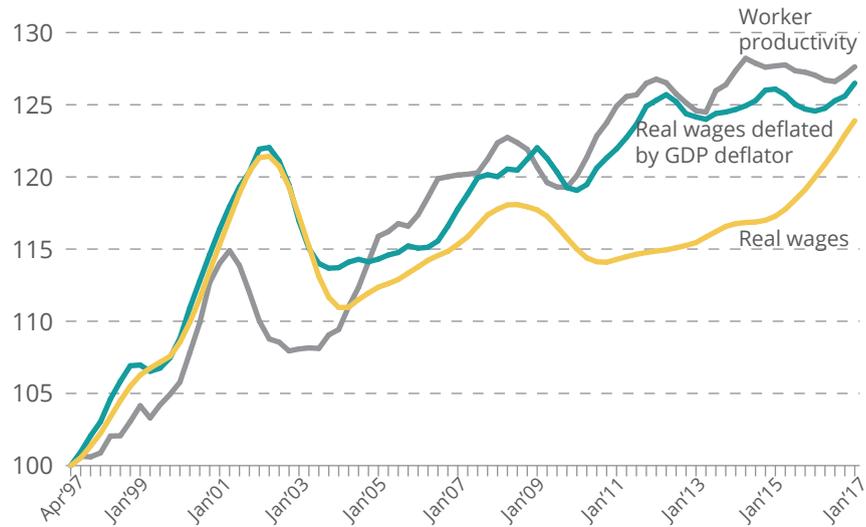
## Real wages have caught up to earlier productivity increases

For many years, productivity and the real wage in Israel rose together. This changed in the last decade, with growth in the real wage lagging behind that in productivity. However, this trend was reversed in the last two years; there has been an acceleration in the growth of real wages despite a slowing in productivity growth. It seems that the explanation lies in price patterns in Israel.

Nominal wages increase when either productivity increases or the prices of goods produced increases. The move from nominal wages to real wages is based on consumer prices as measured by the Consumer Price Index (CPI), prices that reflect consumer purchases. If the producer prices and

the CPI change at the same rate, then we can expect real wages and productivity to move together. And, indeed, for many years these two price indices rose at a similar pace. But since 2007, the CPI rose much faster than the prices of the good produced, leading to a growing rift between productivity and real wages. In the past two years, the gap between the two price indices has been closing, and real wages have risen and closed the gap with the earlier productivity growth. Hence, it seems, *prima facie*, that the current growth in real wages is the result of a temporary adjustment in price patterns, and should not necessarily be expected to continue.

## Wages and labor costs, real wages from the perspective of employee and employer Q1 1997=100, twelve-month moving average



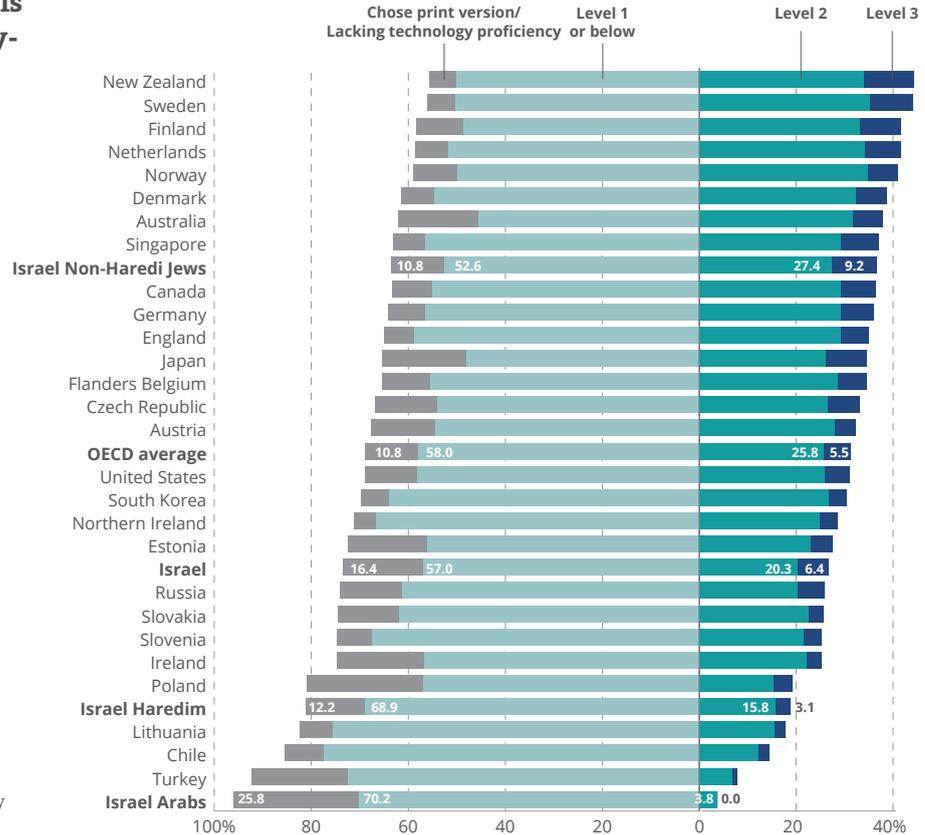
Note: Real wages deflated by CPI. Data is through January 1, 2017  
Source: Gilad Brand and Avi Weiss, Taub Center  
Data: BOI website

## Arab Israelis and Haredim lag behind in computer literacy

With technological progress, digital skills are increasingly required in the work place. The Survey of Adult Skills (PIAAC, Programme for the International Assessment of Adult Competencies) measures adults' proficiency in problem solving in computerized surroundings, i.e., their ability to use technology to carry out certain tasks. Skill level is ranked, with Level 3 indicating high competency. Respondents with no computer literacy took a paper version of the survey. The figure shows the distribution of workers in the OECD by proficiency level. The two columns to the left of zero show the lowest performing workers: those taking the paper survey (the grey columns) or those ranked Level 1 or below. To the right of zero are columns showing the number of workers at proficiency levels higher than Level 1.

As can be seen, Israel falls below the OECD average on several measures: about 16% of the population did not take the computerized version versus about 11% in the OECD, and only 27% were ranked in the high levels of proficiency as opposed to about 31% in the OECD. However, when the population is broken down by sector, we see that non-Haredi Jews have high competency levels relative to workers in other countries. Proficiency levels among Haredim are low, and among Arab Israelis they are even lower, and at the bottom of the OECD ranking. The rankings of these populations, who also struggle with other obstacles related to labor force participation, highlight the importance of providing them with computer literacy skills, for instance through enhanced digital learning in the education system.

## Distribution by competency levels in problem solving in technology-rich environments, 2011-2015



Note: Including those lacking technology proficiency  
 Source: Shavit Madhala, Taub Center  
 Data: CBS, Proficiency Survey 2011-2015





# Labor Market Spotlight

## Understanding the Gender Wage Gap

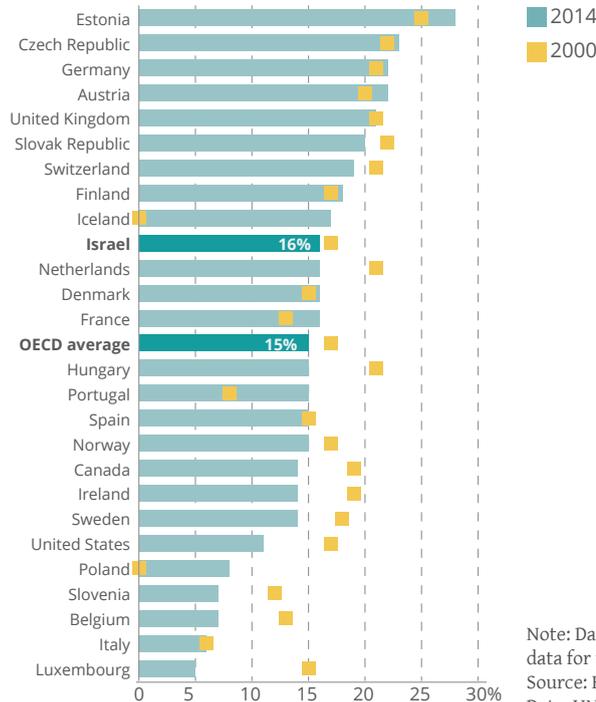
In this final section, we will concentrate on the wage gap between men and women in Israel, try to uncover its sources, and consider steps that are available to try to narrow this gap. There are, unfortunately, many misconceptions regarding the wage gap. As will be shown in the following pages, almost all of the gap is explained by different employment patterns for men and women rather than by outright wage discrimination. What remains is to understand why there are gaps in employment patterns, and what, if anything, should and could be done to address them.

# Hourly gender wage gaps are similar to those in the OECD

If one were to measure the average wage paid a woman and the average wage paid a man, one would find that for every shekel earned by a man, a woman earns only 68 agorot. While this gap is actually smaller than in the past, the calculation itself is misleading for a number of reasons. In particular, as we show on the next page, women work far fewer hours than do men, and a far higher percentage of women are employed in part-time positions.

If, as shown in the graph, one corrects for this factor by simply looking at the hourly wage, the gap is cut by more than half — from 34% to 16% in 2014 (from 32% to 15% in 2015, not shown), which is similar to the wage gap found in other developed countries.

Hourly gender wage gap

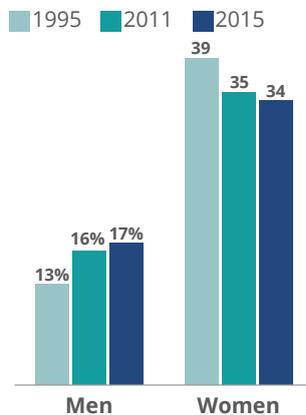


Note: Data for Switzerland are from 2013; data for the United States are from 2011  
 Source: Hadas Fuchs, Taub Center  
 Data: UNECE; CBS, Expenditure Survey 2014

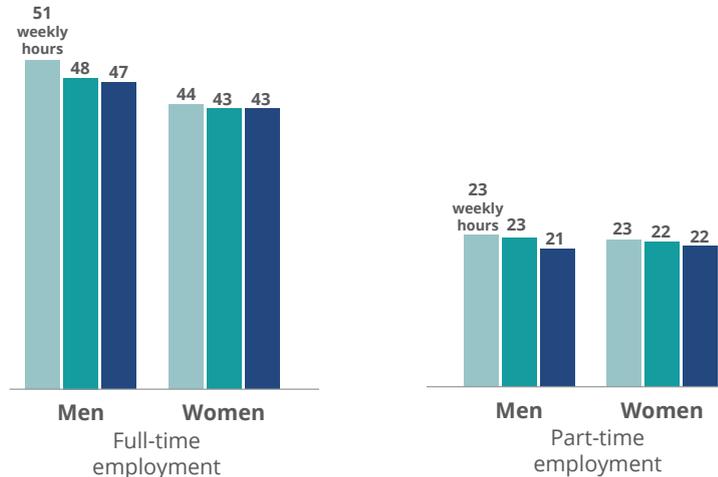
# The hours-worked gap between men and women

As discussed, women in Israel work far fewer hours than do men. In the left panel, we see that while in 1995 women were three times as likely as men to work in a part-time job, in 2015 it is down to only twice as likely. However, even if we look at full-time employees, women work fewer hours than do men, averaging 43 hours a week, while men averaged 47 hours a week in 2015. Most of the remaining gap can also be explained using objective factors, as shown on the following pages.

**Part-time employment rate**



**Average weekly work hours for full- and part-time employees**



Note: Ages 25-54 in all figures  
 Source: Hadas Fuchs, Taub Center  
 Data: CBS, Labor Force Survey

## **Beyond differences in working hours, the wage gap stems largely from differences in occupations**

As noted, more than half of the gender wage gap results from differences in work hours. The second most important factor is differences in occupations and industry sectors between the genders. In general, men are more likely to be employed in jobs and in industries in which hourly salaries are higher. The two variables go hand in hand: women tend to choose occupations that allow them to work fewer hours (such as teaching) – occupations that tend to have lower hourly wages. These two factors together (hours worked and occupation/industry) explain about 70% of the gap. As we show on the next page, a portion of the remaining 30% can also be explained.

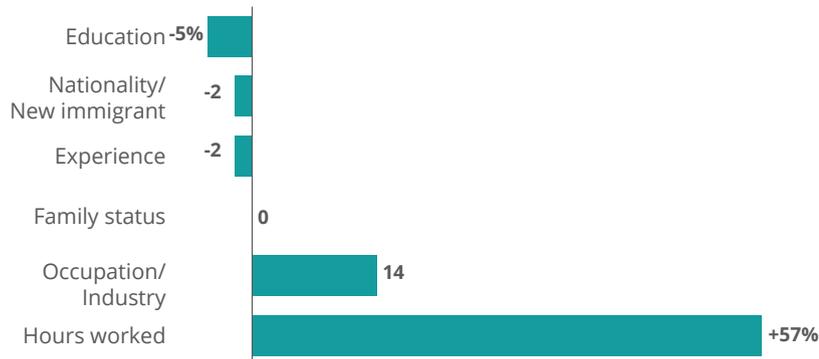
## Components of the gender wage gap, 2010-2011

Oaxaca decomposition



## Contribution of employee traits, 2010-2011

Oaxaca decomposition



Note: In grouping the traits, variables were combined: experience — the sum of experience and experience squared; hours worked — work hours and work weeks per month; family status — whether the individual is married; education — years of study and years of study squared; occupation — occupation and industry branch at 2-digit level of specification according the CBS definition.

Source: Hadas Fuchs, Taub Center

Data: CBS, Income Survey

## Differences in exam scores in mathematics also explain part of the wage gap

In addition to work hours and occupations, math skills also have an impact on the gender wage gap. When bagrut and psychometric scores (as measures of the quality of the worker) are added to the standard explanatory variables in estimates of the wage difference between workers ages 29-31 with a higher degree, the unexplained wage gap is reduced further, from 30% to 6%. It is noteworthy that, among those with higher education, occupation explains a greater share of the wage gap, at least partially because academics tend to work longer hours.

Specifically, math grades in the bagrut and the psychometric exams (the level of math in the bagrut and the grade in the quantitative portion of the psychometric exam) also has an influence on the gap. On average, women have lower achievement levels in math, and this impacts their wages.

Seemingly, an unexplained wage gap of 6% could be indicative of discrimination, but it is likely that some of this gap can be explained by unobserved variables. For instance, women tend to bargain less on salary than men. In any event, this means that in order to understand the sources of the gender wage gap, one must take a broader view of the career paths of men and women.

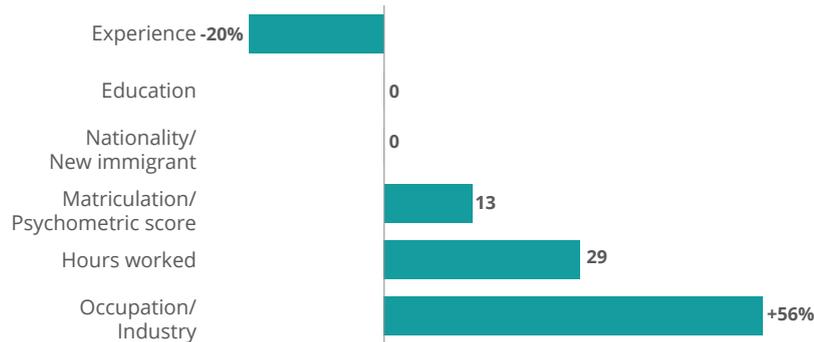
## Components of the gender wage gap including matriculation and psychometric exam scores, ages 29-31, with higher education, 2008

Oaxaca decomposition



## Contribution of differences in employee characteristics to wage gaps, including matriculation and psychometric exam scores, ages 29-31 with higher education

Oaxaca decomposition



Note: In grouping the traits, variables were combined: experience — the sum of experience and experience squared; hours worked — work hours and work weeks per month; education — years of study and years of study squared; occupation — occupation and industry branch at 2-digit level of specification according to the CBS definition; matriculation and psychometric — average matriculation score, number of units and score in mathematics bagrut, number of units and score in English (as a second language) bagrut, and matriculation certificate with emphasis on technological subjects and scores on the different parts of the psychometric exam.

Source: Hadas Fuchs, Taub Center

Data: CBS

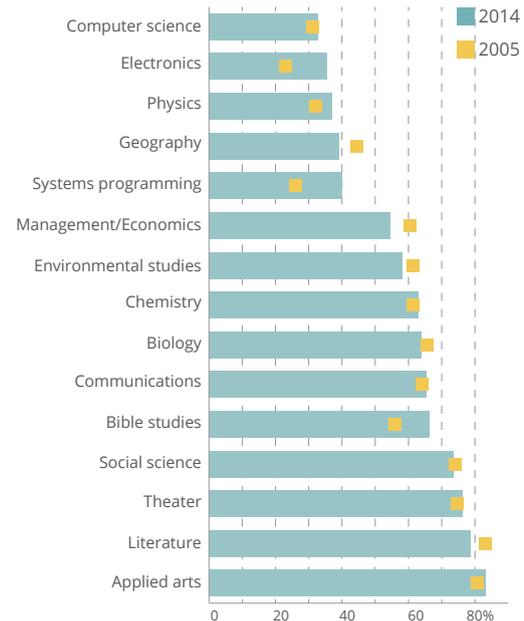
# Looking for the source: In high-school, girls choose to study math and science less than boys

The polarization in occupational choice between men and women, which is one of the factors contributing to the gender wage gap, has already begun in high school. Although girls have higher achievements in general in school, and are more likely to finish school and complete a full bagrut than are boys, fewer of them major in the sciences. While boys and girls score similarly in the fifth-grade Meitzav exams, by high school a gap has opened. Girls tend to choose literature or the arts as study majors, and boys tend to study computers and physics in higher numbers. In addition, fewer girls study math at the highest level (5 bagrut units), and those who do tend to get lower scores than the boys.

In order to narrow the achievement gap in math, there is a need to encourage girls to study the hard sciences in primary school and perhaps as early as preschool. By high school, the gaps between boys and girls are already large.

Note: High level majors are those requiring 5 bagrut units  
Source: Hadas Fuchs, Taub Center  
Data: Ministry of Education

**Percent of women in high level majors**  
The 15 most popular majors studied in school

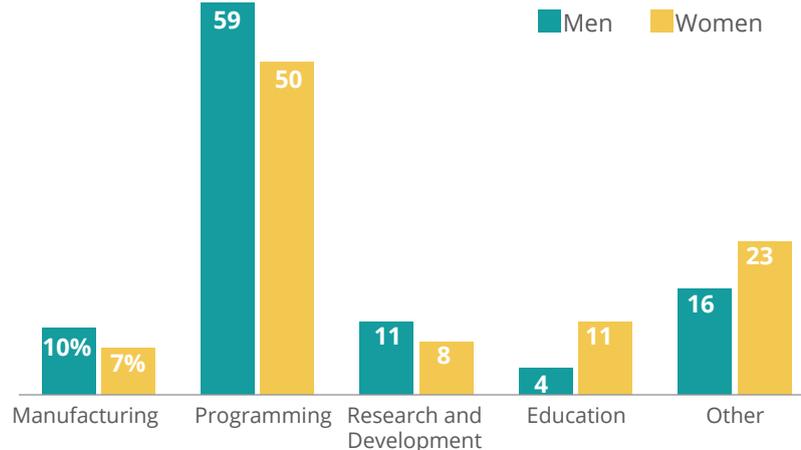


## The employment gap widens: Fewer women trained in computer science work in the field

Although women make up the majority of those studying for a first degree (60%), the share of women studying computer science is low (27%). The problem doesn't end there, though. Even among computer science graduates, a higher percentage of women tend to go into teaching or other industries, and not into more lucrative positions available in their field of study (such as programming).

### Employment areas of computer science graduates, 2013

Ages 30-35



Note: Does not include graduates of academic colleges of education

Source: Hadas Fuchs, Taub Center

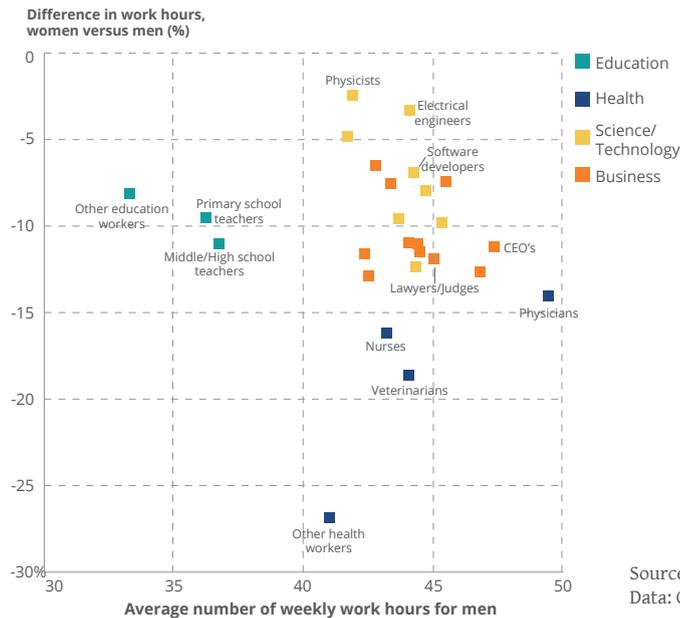
Data: CBS

# Women tend to choose employment in industries with relatively fewer work hours

The long work hours that are common in the technology field could influence the dropout rates of women from working in the field. The figure presents average work hours for men and the gap between women's and men's work hours. Occupations with lots of women in them are characterized by fewer work hours (education) or a high number of work hours for men but a large hour gap between men and women (healthcare). High-tech is characterized by long work hours and the gap between work hours for women and men is low. These are also areas with a shortage of workers, so men and women alike, are required to work long hours. Creative solutions could bring new populations into these fields and balance the demand for workers. Offering part-time positions could encourage women to enter and remain in these fields.

## Average weekly work hours for men and difference in work hours between men and women, 2015

By occupation group, workers with an academic education, ages 30-54



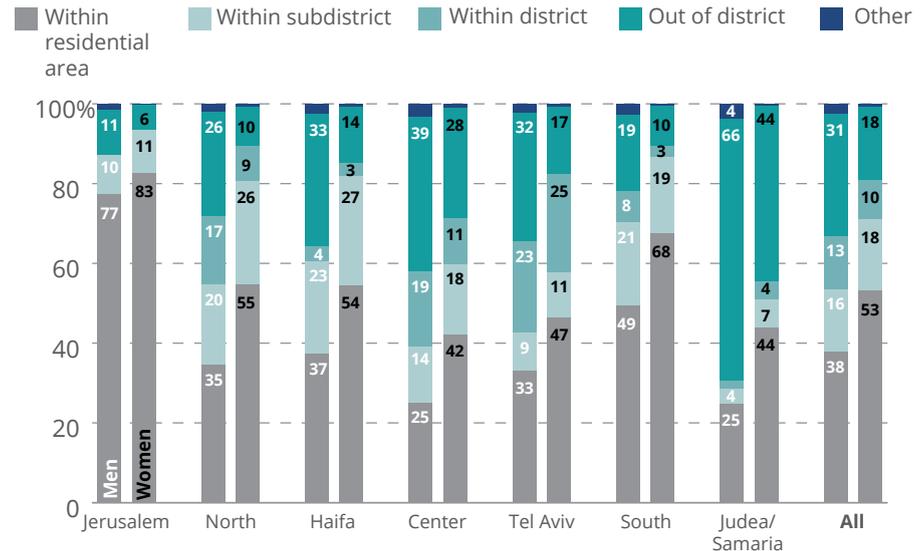
# Women are much more likely to work close to home

Economic migration is considered to be a form of investment in human capital; people migrate to places where they can receive a higher wage, i.e., to where their human capital is valued more. In a small country like Israel, migration does not necessarily mean relocating to another city, but rather commuting farther for work. Married women tend to work closer to home far more than do married men, which could easily be a source for wage differentials, as the person willing to travel will have more options available. It is important to point out that this gender difference persists even when we look at specific occupations.

It is also interesting to note the differences between geographic areas; Jerusalemites are much more likely to work near home, as are those in the South.

## Mobility levels of married people, 2015

Place of work versus place of residence, ages 25-59



Source: Haim Bleikh, Taub Center  
Data: CBS, Labor Force Survey

**PRIVATE EXPENDITURE ON LONG-TERM CARE IN ISRAEL  
IS THREE TIMES HIGHER THAN THE OECD AVERAGE**



For more, see Taub Center infographics on our website: [www.taubcenter.org.il](http://www.taubcenter.org.il)

## ***Board of Directors***

Chair: Michael S. Saxon

Officers: Helen Abeles (Vice-Chair, Governance and Administration), Jim Angell (Vice-Chair, Planning and Resource Development), Jim Koshland (Vice-Chair, Budget and Finance)

Members: Penny Blumenstein, Stuart Brown, Dennis Carlton, John Davison, Miri Eisin, Alan H. Gill, Ellen M. Heller, Stephen Lieberman, Motti Peer, Stanley Rabin, David M. Schizer, Caryn Wolf Wechsler

Immediate Past Chair: Greg Rosshandler

## ***General Assembly***

Chair: Caryn Wolf Wechsler

Members: Penny Blumenstein, Zvi Feine, Amir Halevy, Ellen M. Heller, Stephen Lieberman, Stanley Rabin, Michael Saxon, David M. Schizer, Steven Taub

## ***International Advisory Council***

Henry Aaron (Brookings Institution), David Autor (MIT), Mario Blejer (Banco Hipotecario), Aaron Ciechanover (Technion), Stuart Eizenstat (Covington), Han Entzinger (Erasmus University), Adam Gamoran (William T. Grant Foundation), Eric Hanushek (Stanford University), James J. Heckman (University of Chicago), Peter S. Heller (Johns Hopkins University), Daniel Kahneman (Princeton University), Robert E. Litan (Korein Tillery), Janet Rothenberg Pack (University of Pennsylvania), Burton A. Weisbrod (Northwestern University)

## ***Center Staff***

Executive Director: Avi Weiss

Managing Director: Suzanne Patt Benvenisti

Director of Research: Claude Berrebi

Kasanesh Ambao (Housekeeping), Dudu Barazani (Maintenance), Nachum Blass (Principal Researcher), Haim Bleikh (Researcher), Liora Bowers (Director of Finance, Operations and Policy Analysis), Gilad Brand (Researcher), Lior Chen (Rothschild Ambassador Intern), Dov Chernichovsky (Principal Researcher, Health Policy Program Chair), Tova Cohen (Project and Government Relations Manager), Maya Dolgin (Strategic Partnerships Officer), Hedva Elmackias (Office Manager), Tamar Friedman (Content Manager), Hadas Fuchs (Researcher), Inbal Gafni (Publications Editor), John Gal (Principal Researcher, Social Welfare Policy Program Chair), Nofar Gueta (Research Assistant), Noya Hochwald (Rothschild Ambassador Intern), Shavit Madhala (Researcher), Lior Morag (Online Media Associate), Eitan Regev (Senior Researcher), Michal Rubin (Director of Strategic Partnerships), Laura Schreiber (Operations and Publications Associate), Anat Sella-Koren (Director of Marketing, Communications and Government Relations), Yossi Shavit (Principal Researcher, Education Policy Program Chair), Kyrill Shraberman (Researcher), Alex Tritell (Government Relations Fellow), Alex Weinreb (Principal Researcher), Mika Wenkert (Rothschild Ambassador Intern)

Past Directors: Israel Katz (z"l), Yaakov Kop, Dan Ben-David

## ***Policy Program Fellows***

### Economics Policy Program

Yarom Ariav, Adi Brender, David Brodet, Doron Cohen, Reuben Gronau, Jack Habib, Moshe Mandelbaum, Shuki Oren, Dan Peled, Assaf Razin, Haim Shani, Eytan Sheshinski, Shmuel Slavin, Avia Sпивak, Michel Strawczynski, Shlomo Yitzhaki, Ben Zion Zilberfarb

### Education Policy Program

Yossi Shavit (Chair), Chaim Adler, Shlomit Amichai, Shlomo Beck, Gila Ben Har, Carmel Blank, Inas Deeb, Yigal Douchan, Eli Eisenberg, Dalia Fadila, Yariv Feniger, Isaac Friedman, Yossi Gidanian, Meir Kraus, David Maagan, Zemira Mevarech, Yael Navon, Rita Sever, Yehudit Shalvi, Shimshon Shoshani, Kemal Shufniyah, Sidney Strauss, Rami Sulimani, Yuval Vurgan, Zvi Yanai, Miri Yemini, Noam Zussman

### Health Policy Program

Dov Chernichovsky (Chair), Dorit Adler, Alexander Aviram, Uri Aviram, Ran Balicer, Shlomo Barnoon, Roi Ben Moshe, Yitzhak Berlowitz, Nakhle Bishara, Bishara Bisharat, Orna Blondheim, Adi Brender, Shay Brill, David Chinitz, Asher Elhayany, Leon Epstein, Zeev Feldman, Ronni Gamzu, Iris Ginzburg, Eitan Hai-Am, Jonathan Halevy, Eran Halperin, Avi Israeli, Orit Jacobson, Nir Kaidar, Avigdor Kaplan, Rachel Kaye, Jacob Menczel, Shlomo Mor-Yosef, Meir Oren, Baruch Ovadia, Eran Politzer, Sigal Regev-Rosenberg, Mordechai Shani, Haim Silber, Amir Shmueli, Jochanan Stessman

### Labor Policy Program

Claude Berrebi (Chair), Hagai Atkas, Mark Feldman, Daniel Gottlieb, Eric Gould, Nitza Kasir, Yaakov Loupo, Miki Malul, Guy Mundlak, Dalia Narkiss, Tali Regev, Dimitri Romanov, Moshe Semyonov, Ofer Setty, Sigal Shelach, Arie Syvan, Yossi Tamir, Aviad Tur-Sinai

### Social Welfare Policy Program

John Gal (Chair), Mimi Ajzenstadt, Michal Almog-Bar, Uri Aviram, Shirley Avrami, Avishai Benish, Nissim Cohen, Abraham Doron, Israel Doron, Zvi Feine, Boni Goldberg, Daniel Gottlieb, Roni Holler, Nitza Kasir, Chana Katz, Michal Koreh, Michal Krumer-Nevo, Lihi Lahat, Lia Levin, Ibrahim Mahajne, Miki Malul, Ronen Mandelkern, Menachem Monnickendam, Baruch Ovadiah, Nadav Perez-Vaisvidovsky, Shmulik Sheintuch, Sigal Shelach, Roni Strier, Yossi Tamir, Talia Tayri-Schwartz, Yekutiel Tsaba, Idit Weiss-Gal, Uri Yanay, Amos Zehavi

The Taub Center was established in 1982 under the leadership and vision of Herbert M. Singer, Henry Taub, and the American Jewish Joint Distribution Committee. The Center is funded by a permanent endowment created by the Henry and Marilyn Taub Foundation, the Herbert M. and Nell Singer Foundation, Jane and John Colman, the Kolker-Saxon-Hallock Family Foundation, the Milton A. and Roslyn Z. Wolf Family Foundation, and the American Jewish Joint Distribution Committee.