



 **TAUB CENTER**  
for Social Policy Studies in Israel

THE HERBERT M. SINGER ANNUAL REPORT SERIES

**STATE OF THE  
NATION REPORT**  
SOCIETY, ECONOMY & POLICY IN ISRAEL

2025

EDITOR: AVI WEISS

The Herbert M. Singer Annual Report Series

# State of the Nation Report

Society, Economy & Policy  
in Israel 2025

**Avi Weiss, Editor**



Taub Center for Social Policy Studies in Israel

Jerusalem, December 2025

# Taub Center for Social Policy Studies in Israel

The Taub Center for Social Policy Studies in Israel 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. In addition, generous support is also received each year from individual donors, foundations and Jewish federations.

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# A Message from the Board Chair



Each year, the Taub Center for Social Policy Studies in Israel publishes the State of the Nation Report offering in-depth reviews across all of the Center's research fields. Drawing on a rich database, the report's chapters examine the changes and developments that have taken place in Israel's social and economic spheres over the past year, including the effects of the war, and present the long-term challenges and opportunities facing the country. I hope that these comprehensive studies will continue to

serve as a tool for responsible, data-driven policy making by decision makers in Israel.

In my role as Chair of the Board of Directors of the Taub Center, I am repeatedly reminded of the importance of the Center's work to Israeli society and its economy. I extend my deep appreciation to the researchers, management, and professional staff, who continue to produce research of uncompromising quality with the aim of advancing Israeli society in all its diversity.

Yours,

**Miri Eisin**

Chair, Taub Center Board of Directors

# A Message from the Director General



In the coming years, the State of Israel stands to face significant challenges: rising demand for social services, driven in part by the effects of the war and an aging population, alongside continued growth in budgets allocated to defense and interest payments on the national debt.

Taub Center's State of the Nation Report 2025 plays a key role in understanding Israel's social and economic systems. The report reviews the status of these systems over the past year, including an examination of how they functioned during wartime.

Israeli society is shown as a complex picture that requires an interdisciplinary, cross-system response with unprecedented demographic changes alongside growing social needs in education, health, and welfare. The challenges of integrating Haredi men and Arab women into the labor market remain, and the macroeconomic outlook is unclear. As in previous years, we also shine a spotlight on environmental issues, including the impact of the war on Israel's energy security.

In the year ahead, we at the Taub Center will continue to invest in high-quality, independent, and non-partisan research, with the aim of providing policy makers with tools to improve social services in Israel, whether in routine times or in emergencies. I would like to thank the Center's team for their contribution to this publication: the researchers for the insightful chapters they wrote; Ayelet and Laura for producing a meticulous, high-quality product; Hadar and Hedva for their work in disseminating our research; and Prof. Avi Weiss, who led the effort from start to finish.

**Nir Kaidar**

Taub Center Director General

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# Editor's Introduction



I am honored to once again present the Taub Center for Social Policy Studies in Israel's foremost publication, the 2025 edition of our Herbert M. Singer annual *State of the Nation Report*.

Israel has finally exited from the longest war, by far, in its history — a war that began after the horrific terror invasion into Israel on Simchat Torah, October 7, 2023 — and another war that was one of its shortest — the 12-day war in July this year with Iran. The impact of this war has been substantial in almost all walks of life, and have left a changed Israel in many ways. The recovery, and particularly the rate of recovery, will differ greatly across different fields, with some able to bounce back quickly, while others might take years or even longer to rebound. Much of this will be reflected in the discussions in this book, with an analysis of the effects of the war being central to several of the chapters herein.

The book includes overview chapters in the Center's main fields of study: demography, macroeconomic policy, labor markets, health, the environment and health, education, and welfare. The book also includes 12 executive summaries of papers published throughout the year, some of which expressly deal with the effects of the current war.

The book this year begins with a fascinating overview of how Israel's demography has taken a few new turns. The chapter, penned by *Prof. Alex Weinreb*, focuses on changes that are taking place — and will continue to take place in the future — in each of the three components of population change — births, deaths and migration. Specifically, fertility rates are falling in all population sectors, while the number of deaths is increasing rapidly due to the aging of the population. Migration has also seen a large shift as emigration outstripped migration in both 2024 and 2025. The result is that Israel's population growth in 2025 was the lowest it has been since the State was established in 1948.

From there we turn to discuss Israel's economy, how it was affected by the war, and how things look now that the war is over. *Prof. Benjamin Bental and Dr. Labib Shami* discuss the high costs of the war, and the risks that the Israeli economy faces. Despite these, they offer a ray of hope, explaining that the relaxed security situation and the possibility of regional political arrangements offer the possibility that the economy will return to a path of rapid growth. Achieving this, however, will require growth-enhancing policies — especially investment in physical infrastructure and improvements in human capital. They warn that in the absence of such investments a vicious cycle could ensue — insufficient growth could intensify resource constraints which, in turn, could undermine needed public investments, which would further reduce the rate of GDP growth.

Next is an executive summary of two papers that blend demography with macroeconomics. The method, known as National Transfer Accounts (NTA), combines the system of national accounts with core demographic characteristics disaggregated by age. The product of these steps provides a more robust estimate of future fiscal constraints on public policy than one can elicit from any other existing methodology.

The first paper, authored by *Prof. Alex Weinreb, Kyrill Shraberman, and Prof. Avi Weiss*, introduces baseline NTA estimates for Israel. This serves the dual purposes of introducing the NTA tools to Israeli decision makers and social scientists and introducing Israel's unique demographic-economic interactions to our non-Israeli NTA colleagues.

The second paper, by *Prof. Alex Weinreb and Kyrill Shraberman*, disaggregates Israel's national NTA schedule for each of its three subpopulations — Israeli Arabs, Haredim (ultra-Orthodox Jews), and the general population. The differences between these groups in terms of demographic growth and economic behavior are substantial, with considerable implications for Israeli society.

The next chapter, co-authored by *Michael Debowy, Prof. Gil S. Epstein, and Prof. Avi Weiss*, provides a deep-dive into the Israeli labor market and processes that began in the past year. In this overview chapter, the researchers show that while the unemployment rate continued to decline, there was a reversal of recent trends, with the decline in working hours and the rise in wages coming to a halt. They conclude that while unemployment will remain low in the foreseeable future, the slowdown in wage growth — in high-tech and in other industries — is a cause for concern.

This is followed by two executive summaries of papers concerned with high-tech employment in Israel.

The first, by *Michael Debowy, Jonathan Winter, Prof. Gil S. Epstein, Prof. Avi Weiss, and Efrat Behar-Netanel*, presents an empirical analysis of the expected effects of generative artificial intelligence on the Israeli labor market. The analysis combines exposure indices with complementarity indices, a framework that allows the researchers to assess not only which occupations are exposed to the technology but also the degree to which AI could replace the workers in them. The paper shows that in 2024, approximately 17% of the tasks performed by the average worker in Israel were exposed to being carried out by AI Large Language Models. The paper also presents an analysis of changes between 2023 and 2024 — both technological and employment-related — and provides insight into the direction and pace of AI's influence on the labor market.

The second is of a paper that looks more generally at employment in the high-tech sector. In this paper by *Michael Debowy, Prof. Gil S. Epstein, and Prof. Avi Weiss*, it is shown that despite continued growth in foreign investment and in the output of high-tech and technology workers, the war and the artificial intelligence revolution have left employment in high-tech and technology occupations in a weaker position than before. In particular, the authors point to concern about the rise in unemployment in high-tech and technology occupations, the decline in job vacancies in technology occupations, the drop in high-tech and technology employment in the South and North, and the adoption of artificial intelligence to replace workers in high-tech services.

We turn next to health. In their overview, *Prof. Nadav Davidovitch, Natan Lev, and Ofir Gonen* look at the paradox within the Israeli health care sector: while the life expectancy in Israel (83.8 years) is higher than in all but three OECD countries, the national expenditure on healthcare (public and private) is among the lowest among the high-income countries of the world. The concern is that Israel's success to date does not guarantee success in the future; the resilience may not last forever. The paper proceeds to present the many longstanding problems that Israel's health system still faces. At the same time, it presents numerous reforms that are underway to help improve the situation. The bottom line is that to continue to provide high-quality medical care and health-promotion services that enable well-being and prosperity, health needs be elevated to a national priority.

Two executive summaries are included in the field of health.

The first focuses on the importance of the *Tipat Halav* (Family Care Centers) system in Israel and on the challenges it faces. *Prof. Nadav Davidovitch, Dr. Sarit Silverman, Efrat Sales, and Dr. Yair Sadaka* explain that while these clinics have become the backbone of the healthcare system in today's Israel, decades of continuous erosion in funding, staffing, and infrastructure maintenance have left the system in a deteriorated state. To ensure that the Israeli population can continue to benefit from its essential services, action must be taken to strengthen and preserve it. Investing in *Tipat Halav* is an investment in nurturing our most important asset: young children — the future generation of the State of Israel.

The second executive summary in the health field, authored by *Prof. Gabi Bin Nun, Prof. Nadav Davidovitch, and Nir Kaidar*, looks at the expected effects of raising the co-payment on medicines included in the health basket. Specifically, it considers the plausibility that there will be those, particularly from the lower socioeconomic classes, who may forego purchasing medications due to their higher prices. This, in turn, increases the level of inequality in Israel's healthcare system. The authors suggest other options to raise the desired funds without weakening the egalitarian character of the healthcare system.

The overview of the related field of environment and health follow. In this chapter, *Or Siman-Tov, Yael Yavin, Nir Kaidar, and Dr. Maya Sadeh* look at three interrelated issues – the water sector, energy, and government expenditures. They begin by giving a bird's-eye-view of Israel's standing in the environmental domain. They show that government and public expenditure on environmental protection in Israel is low and is allocated mostly to waste management and explain why increasing the investment in renewable energy is essential for the country's energy security. They also point to a false sense of security Israelis have regarding their water resources due to increased desalination, and conclude that preserving natural water resources and water conservation are vital for water security.

The next section of the book is concerned with education. This includes an overview chapter, and six executive summaries, two of which are focused on early childhood, and therefore more of a combination of all social services — welfare, health, and education. We place them in the education section because they deal with the special education pre-school system.

First comes the overview by *Nachum Blass*. This year, the focus is on three issues: budgets, the oft-reported teacher shortage, and the Shapira Committee report. With respect to the budget, the report focuses on two issues — the disproportionate growth in the number of special education students and on its budgetary implications, and on the growing share of explicit and hidden reserves in the Ministry of Education's budget, accompanied by a lack of transparency and by the absence of monitoring and oversight. With regard to a teacher shortage, the author demonstrates that none of the indicators used in the research literature to identify teacher shortages are present in Israel, and, therefore, this is no more than a perceived crisis. Finally, the revolutionary recommendations of the Shapira Committee are reviewed briefly focusing on its recommendation to limit class size from pre-primary through grade 9 to an average of 19 students per class.

The first two executive summaries deal with special education in preschools. In the first of these, *Dr. Sarit Silverman and Nachum Blass* focus on the relationship between preschool class size and special education participation. Preschool students with special needs in Israel have two primary educational placement options: they may attend separate special education preschools specifically for children with disabilities, or they may be integrated into general education preschool classrooms and receive additional supports. Most preschoolers who receive special education services attend separate special education preschools rather than inclusive settings. They demonstrate that larger class sizes are particularly associated with higher rates of separate special education placements in the Hebrew State system, where these settings are most prevalent. This suggests that classroom overcrowding acts as a structural barrier to inclusion, pushing families toward separate frameworks.

The second executive summary is also of a paper by *Dr. Sarit Silverman and Nachum Blass*, this time focusing on the expansion of special education within the preschool system. This paper was produced as part of the activities of the Taub Center Initiative on Early Childhood Development and Inequality. In it, the authors analyze trends in Israel's preschool special education system from the 2020/21 school year through the 2023/24 school year, examining support type, educational stream, local SES, and disability frequency to identify patterns among special education preschool students. During this period, the number of special education preschool students increased by 36%, while the number of general preschool students declined. The study uncovers significant disparities,

for instance between students in the Hebrew State stream and those in Arab and Bedouin systems, and between children from high SES areas who are more likely to receive individualized support, and those from low SES areas depend more heavily on institutional support. The findings underscore the need for targeted policies to address systemic inequities.

The next two education executive summaries relate to budgets for primary and middle schools. The first, authored by *Nachum Blass and Haim Bleikh*, seeks to pinpoint the source of the differences between the budgets allocated to primary schools from different sectors and with different supervisory authorities, and to examine whether there is a bias in budgeting. The findings reveal that the budgeting process for primary schools is largely based on transparent and accessible formulas, and that most of the differences in allocation between the sectors and supervisory authorities do not stem from arbitrary decisions but rather from these budgeting formulas. In addition, after controlling for a range of explanatory variables, there has been, for the most part, a narrowing of gaps in budgeting per class and per student among sectors and supervisory authorities.

The second, also by *Nachum Blass and Haim Bleikh*, looks at the same issue for middle schools (grades 8–10). Interestingly, the findings do not match those for primary schools; while for primary schools, objective criteria explain the vast majority of budgetary differences, for middle schools, a far larger share goes unexplained, and the its portion has even increased over time. In addition, disparities across supervisory authorities are different — per class differences between Hebrew State schools and Hebrew State-religious schools have actually grown slightly, while those between Arab State schools on the one hand and Hebrew State and Hebrew State-religious schools have fallen considerably.

The fifth executive summary looks at long-term educational trends in the Jewish population in Israel. This paper, by *Haim Bleikh and Professor Gil S. Epstein*, examines trends in overall education levels, trends among those with higher education, and trends in study majors for academic degrees over three decades (1995–2023). The results point to an increase in educational attainment over the years across all origin groups in Jewish society, and point to an overall trend of narrowing educational gaps between origin groups. Nevertheless, according to the authors, to ensure continued progress in reducing educational gaps, the state can increase affirmative support for schools serving populations from lower socioeconomic backgrounds.

The final executive summary on education was penned by *Nachum Blass, Dr. David Maagan, Prof. Zemira Mevarech, and Dr. Joel Rapp*. In their paper, the researchers conducted a longitudinal study of the ability of PISA exam scores to predict future educational attainments. They looked at PISA examinees from 2009 in Israel over a 14-year period and checked their high school outcomes, psychometric entrance test scores, and tertiary education, controlling for gender, SES, and sector. Their findings point to a significant relationship between reading proficiency as assessed by PISA 2009 and participants' future academic achievements. An interesting effect revealed in this research is the relatively high percentage of low achievers who, in contrast to expectations, succeeded in the later stages of their academic career.

In its final section, the book turns to the area of welfare. The overview chapter, authored by *Prof. John Gal, Shavit Ben-Porat, and Yael Ovadia*, focuses on the far-reaching consequences the prolonged war in Gaza has had for the welfare and social security systems in Israel over the past two years. To address the needs of those affected, spending increased substantially. At the same time, growth in other welfare and social security expenditures was halted. The chapter also touches on systems and populations that typically receive little attention in public debate: children at risk and the anticipated changes to the treatment planning and assessment committees, as well as the substantial long-term decline in public housing expenditure. From their analysis, it is clear that the welfare system will face increasingly complex challenges in the years ahead, including those resulting from a steep increase in the mental health needs of individuals and families and the rehabilitation of communities affected by the war.

Our final executive summary concerns an understudied population — men and women between the ages of 50 and 64 who live alone. The study's authors, *Shavit Ben-Porat and Prof. John Gal*, note that about 17% of single-person households live below the poverty line, compared with only about 11% of non-single-person households. They are less likely to be employed and more reliant on allowances for their livelihood, a lower share live in homes they own, and among renters, more live in public housing. In addition, many forgo medical treatments and medications due to financial difficulties. The researchers feel that it is essential for state institutions to develop comprehensive and long-term national policies to address the needs of those in this age group who live alone, especially in view of the expected growth in this population in the coming two decades.

\* \* \*

This is the place to once again thank the Taub Center employees. A special thanks to all those who have been instrumental in publishing and disseminating this book. First and foremost, as always, to Ayelet Kamay and Laura Schreiber, who invest their all to ensure that we continue to produce top quality publications, both in content and in presentation. To Hadar Horen who has stepped into the large shoes of Chen Mashiach during her maternity leave, and who has done an incredible job in dissemination. To Nir Kaidar, Prof. Alex Weinreb, and Prof. Gil Epstein for their comments on the overview in this book and in the research produced throughout the year. And, of course, to the Taub Center researchers who continue to supply important and timely information to Israelis and all those who care for Israel and its well-being. Finally, to the Taub Center Board of Directors and General Assembly members and to all our supporters without whom this would not be possible.

May you learn as much from the chapters in this book as I have.

Yours,

**Professor Avi Weiss**

President, Taub Center for Social Policy Studies in Israel

Department of Economics, Bar-Ilan University



# DEMOGRAPHY





# Israel 2025: A Demographic Fork in the Road

Alex Weinreb

## Introduction

Since Israel's founding, its population growth rate has fallen below 1.5% only twice: to 1.42% in 1981 and 1.35% in 1983. Israel's growth rate in 2025 will shatter that record. According to our estimates, it will be around 0.9%.

The main goal of this year's demography chapter is to shed light on that record-breaking low growth rate. Across three sections, we cover trends in the three components that drive all population change: births, deaths, and migration. Broadly, we show that the number of *deaths* has been slowly rising, but will rise at a much faster rate over the next decade, despite Israel's impressively high life expectancy. We then show that the number of *births* in Israel has been remarkably stable, even as a closer look reveals distinct shifts across Israel's diverse subpopulations that have implications for future growth: these include early signs of a substantial reduction in Jewish women's fertility rates, following those of Muslim women. Combining these two trends allows us to estimate Israel's *rate of natural increase* — demographic growth that is unrelated to net migration — which has been falling over the last few years and will, as we show, fall more dramatically over the next couple of decades.

The final section — also the longest — is on *migration*, which has been shifting markedly over the last few years in terms of the number of people moving both to and from Israel. This shift is the main factor underlying Israel's falling demographic growth rates. Unfortunately, some of the measures used to describe these movements are often misunderstood and, therefore, misused.

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We clarify these issues here, point to the centrality of *remigration* in Israeli migration patterns and to the recent diversification in Israeli emigrants' destinations. We also introduce a statistical model to forecast Israelis' net long-term migration in the short term that suggests continued high outmigration until at least June 2026.

## Mortality

The standard measure used to summarize mortality in a population is *life expectancy at birth*. Estimated in a life table, it is a measure of how long an average person born today would live if they were subject to current age-specific mortality rates.

According to OECD estimates — based on data submitted by member countries' national statistical offices — Israel's overall life expectancy at birth in 2023 was 83.7. Among OECD countries, only Switzerland, Japan, and Spain did better. In fact, Israel's life expectancy was 5.3 and 2.7 years higher than that of the US and UK, respectively. Israel's male life expectancy of 81.7 was joint second highest with Luxembourg and Sweden: only Switzerland is higher. Israel's female life expectancy of 85.7 placed Israel alongside France in 5th place.

It is important to note that these OECD estimates are the CBS's *provisional estimates*, which, in Israel's case, do not include deaths on October 7, 2023, or other war-related deaths that occurred by the end of 2023. This arguably makes them a valid indicator of Israel's intrinsic life expectancy — that is, of the health status of its population and effectiveness of its health system in the absence of war. However, if one's interest is in the actual mortality experience of Israel's population in 2023, those OECD figures are misleading. The war significantly impacted Israelis' actual mortality in 2023, especially that of Jewish men.

This can be seen in Figure 1, which shows these trends for Jews (including Others<sup>1</sup>) and Arabs, with separate lines for men and women. In both sets of graphs, we see what should have been a sharp rise in life expectancy in 2023 for both men and women. After a reduction and flattening of life expectancy

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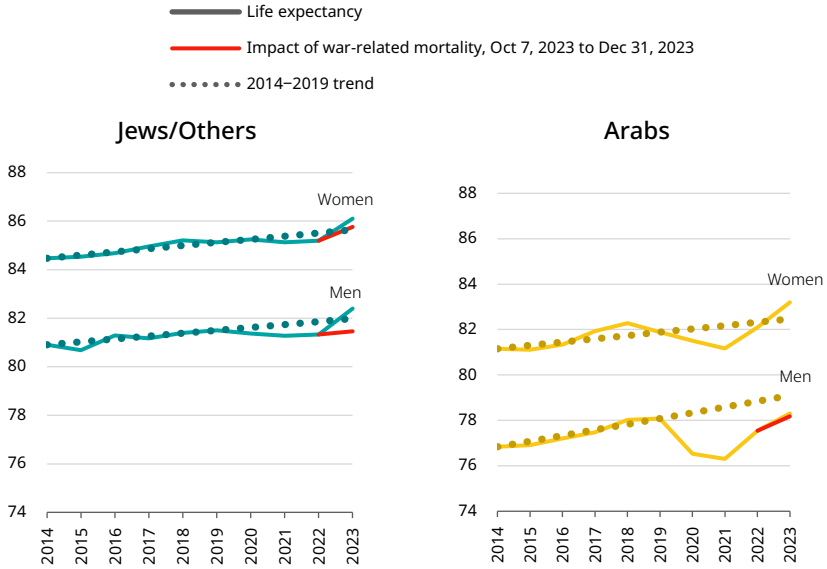
1 "Others" is a Ministry of Interior category used to identify people who are neither *halachically* Jewish under the State's Orthodox interpretation of Jewish law nor Arab. Most Others are people who made *aliya* under the Law of Return and are therefore socially and politically integrated into the Jewish rather than the Arab population. Throughout this chapter, "Jews" includes "Others" unless otherwise stated.

among Jewish men and women during the COVID years (2020–2022) both were on track to surpass the predicted life expectancy, with the latter based on 2014–2019 trends. Arab women's life expectancy also surpassed the long-term trend. Only Arab men fell short of it. This is most likely because the post-COVID rise in life expectancy has been reduced by the high murder rate of Arab men, most of whom are under 40. Because the method used to calculate life expectancy gives more weight to deaths at younger ages, a person who dies in their first decades of life reduces life expectancy much more than a person who dies at older ages.

This is also the reason for the very large effect of October 7 on Jewish life expectancy, especially of men. Deaths in the October 7 attack and in the subsequent war up to the end of 2023 reduced Jewish men's life expectancy from 82.4 — equal to Switzerland, which topped the OECD ranking — to 81.5. The effects on other groups were less pronounced. The life expectancy of Jewish women fell from 86.1 to 85.8 and of Arab men from 78.3 to 78.2. The war did not directly affect the life expectancy of Arab women.

Even as life expectancy has been climbing, and is expected to climb further, albeit not at the same pace as in the late 20th century (Sasson, 2025), the absolute number of deaths has been rising: from around 46,000 in 2018 to around 51,000 in 2024. This trend has also been affected by COVID and the war in Gaza.

**Figure 1. Life expectancy at birth, by population and sex**



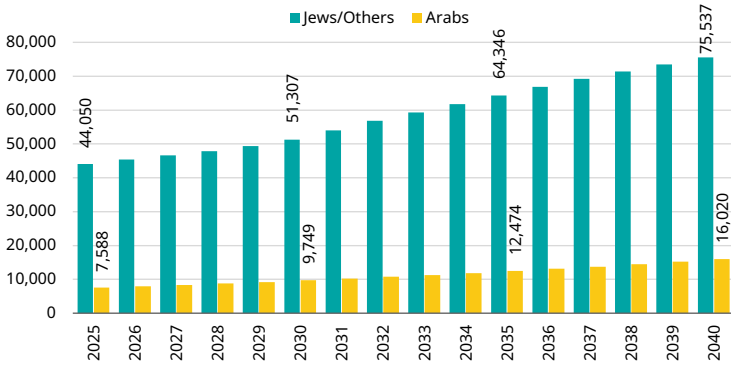
Source: Alex Weinreb, Taub Center | Data: CBS

The number of deaths will continue to rise and, by the late 2020s, accelerate. We know this because we recently projected the number of deaths over the next few decades as part of an effort to better prepare national burial policy (Weinreb, forthcoming). To do this, we projected age-specific mortality rates over the next 15 years based on shifts in the 2009–2019 (pre-COVID) period.<sup>2</sup>

2 The CBS medium variant population projections to 2050 served as the base for our forecast. Those differentiate Jews/Others from Arabs, further dividing each population group by sex. We applied a Holt-Winters projection of age- and sex-specific mortality rates in 5-year age groups up to 2028 to each of these subpopulations, based on prior 2009–2019 age-specific mortality schedules (i.e., we avoided extrapolating from COVID years). Within each subpopulation, we then applied these projected age-specific mortality rates to the CBS population projections in each age group, yielding numbers of deaths in each age group. Adding the age groups together within each subpopulation generates the total number of deaths in each subpopulation.

A subset of those projections is shown in Figure 2. Between 2025 and 2040, the annual number of deaths in Israel will climb by roughly 77%: by 71% in the Jewish/Other population; and by 111% in the Arab population. This sharp increase is a function of Israel's age structure. That is, large cohorts of Jews and Arabs are about to reach their 70s and 80s, which is when age-specific mortality rates climb sharply. The differences in the magnitude of these increases among Arabs and Jews reflects both faster growth in the elderly Arab population and higher Arab age-specific mortality at those ages.

**Figure 2. Projected number of deaths, by subpopulation**



Source: Alex Weinreb, Taub Center | Data: Projections based on CBS data from 2009–2019 (see footnote 2)

It is important to note that the Figure 2 estimates are conservative. They assume that reductions in age-specific mortality until 2028 continue at the same pace as in the 2009–2019 period. Increasing morbidity at older ages, reflected in the flattening of the life expectancy gains relative to the late 20th century (Cardona & Bishai, 2018), raises questions about the validity of this assumption. That is, the number of deaths that Israel will experience is more likely to surpass these estimates than to fall short of them.

## Fertility

Across the last ten years, the annual number of births in Israel has been remarkably stable. This is shown in the final column of Table 1, which shows that number, by religion, for 12-month periods beginning July 1, 2015 and ending June 30, 2025. In no single year has the number of births fallen below 179,000 or exceeded 185,000.

**Table 1. Absolute number of births, by religion and year, 2016–2025**

	Jews	Muslims	Druze	Arab Christians	Non-Arab Christians	Not classified	Total
2016	134,100	37,592	2,446	1,965	648	4,652	181,403
2017	134,630	39,550	2,350	1,877	627	4,609	183,643
2018	135,087	39,281	2,454	1,989	666	4,639	184,116
2019	134,800	39,096	2,361	1,906	622	4,532	183,317
2020	132,759	39,148	2,291	1,850	640	4,489	181,177
2021	131,873	38,352	2,261	1,781	686	4,234	179,187
2022	134,358	40,331	2,281	1,678	672	4,421	183,741
2023	132,460	39,364	2,159	1,729	588	4,124	180,424
2024	13,1934	39,310	2,023	1,538	584	3,804	179,193
2025	134,635	38,877	1,988	1,530	562	3,577	181,169

Note: "Not classified" refers almost wholly to Israel's "Other" population. Most are immigrants, or the children of immigrants, who are not halachically Jewish but have rights to citizenship through the Law of Return or through marriage.

Source: Alex Weinreb, Taub Center | Data: CBS

The stability in the absolute number of births disguises important shifts in the composition of Israeli births on two discrete axes: by religion; and by religiosity. It also disguises important differences in the trajectory of underlying fertility rates across religious groups, and in the relationship between absolute numbers of births and fertility rates across these groups. Here we clarify this relationship in order to better understand the context within which the mild war-related baby boom among Jewish women in Israel, described in last year's chapter (Weinreb, 2024), occurred. It will also help us point to future fertility trends with more confidence.

## Religion

The left-hand panel of Figure 3 shows the period Total Fertility Rates (TFR) of women in Israel by women's religion over a 20-year period from 2006 to 2025.<sup>3</sup> The right-hand panel shows shifts in the TFR relative to 2005.

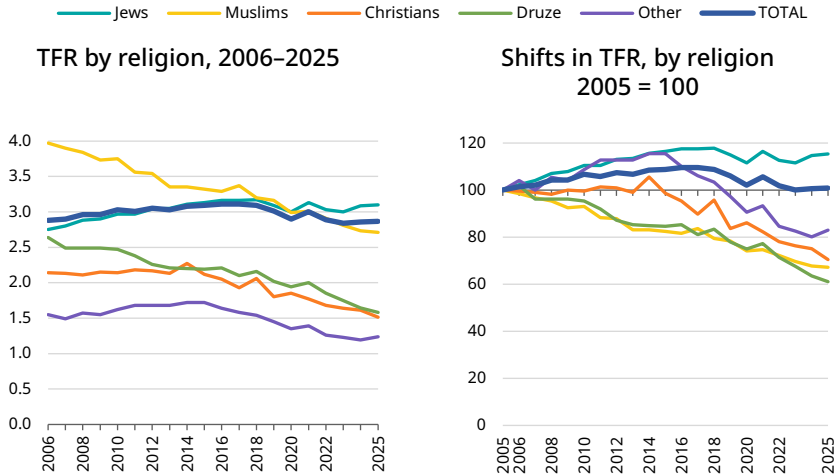
These figures show that the overall stability in the absolute number of births since 2016 seen in Table 1 is occurring despite substantial reductions in the fertility rates of all groups, with the exception of Jews. Those reductions are an extension of longer-term patterns: a 30% reduction in fertility rates over 20 years for Muslim and Druze women; and a 30% reduction in rates over the last 12 years for Christian and Other women. In fact, Jewish women are the only religious group to have maintained relatively stable TFRs, and to have higher TFRs now than in 2005. This is in spite of a moderate reduction from 2018 to 2023 that was interrupted by a small baby bump in 2021, following COVID, and in 2024, starting around 11 months after the outbreak of the war in Gaza and continuing through the first six months of 2025. The result of all these shifts is that *Jewish women's TFR is now roughly double that of Druze and Christian women, and 0.4 children higher than that of Muslim women.*

These reductions in fertility rates do not translate directly into shifts in the absolute number of births. This can be seen by comparing the trends in Figure 3 to those in Table 1, which shows the absolute number since 2016. Among Jewish women, the number of births has remained stable in the 131,500 to 135,000 range, as has the underlying fertility rate. Among Muslim women, the number of births has also remained stable — in the 37,500 to 40,500 range — but in this case, it is despite an 18% reduction in the underlying fertility rate (from 3.29 in 2016 to 2.71 in 2025). Christian and Druze women have experienced reductions in both fertility rates and the number of births, though the former much faster: a 26% fall in Christian women's fertility rate led to a 22% reduction in births, whereas a 29% fall in Druze women's fertility rate led to only a 19% reduction in births.

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3 The period TFR is a measure of how many children a woman will have, assuming that current age-specific fertility rates (at ages 20–24, 25–29, 30–34, etc.) remain stable. This is not an empirically robust assumption, especially in places, like Israel, that have undergone shifts in the age-pattern of fertility. Nevertheless, it remains the most widely used measure of fertility because it is both easy to measure, takes into account age-structure, and is sensitive to temporal changes. Later, we combine a time series of age-specific measures of *children ever born*, an alternative measure of fertility, to generate more cohort-specific measures.

**Figure 3. Israel's Total Fertility Rate (TFR) by religion**



Notes: Data up to 2023 are official CBS estimates. The 2024 and 2025 estimates use a slightly different method, as discussed in Weinreb (2024).

Source: Alex Weinreb, Taub Center | Data: CBS

These differences in trends between fertility rates and the absolute numbers of births stem from the fact that the TFR is a measure of births relative to the number of women of reproductive age. By convention, that covers ages 15 to 49. In turn, this means that fluctuations in a population's age structure — in particular, in the number of women at peak fertility ages 25–34 — affects the translation of fertility rates into the number of births.

In Israel's Muslim population, growth in the number of women of reproductive age compensated for the 18% reduction in the overall fertility rate — applying a falling rate to a growing number of women yielded a stable number of births. Over the next ten years, that growth in the number of Arab women of reproductive age will slow and then halt for at least a decade. As of 2025, the number of Arab women aged 20–24 is around 8% larger than the number aged 25–29. The latter is 16% larger than the number aged 30–34, which in turn is 24% larger than the number aged 35–39. That rapid growth from one cohort to the next is about to end. The number of Arab women aged 15–19 and

10–14 is, respectively, 4% and 1% *smaller* than the 20–24 cohort. By the time these younger cohorts age into peak fertility years, any further reduction in the fertility rate will therefore pull down the absolute number of births in Israel's Arab population. Only substantial net immigration of young Arab women over the coming years will prevent that reduction in the number births.

The situation in the Jewish population is quite different. The number of Jewish women aged 25–29 is only 3% larger than the number aged 30–34, which in turn is 3.5% smaller than the number aged 35–39. In other words, the cohorts entering peak ages at fertility — late 20s to early 30s — have hardly grown over the last several years, leading to a more uniform relationship between the number of births and fertility rates. Over the next ten years, this will change, but in the opposite direction to the Arab population. The number of Jewish women aged 25–29 will grow by around 14% by 2030, and by around 23% by 2035. Unless fertility rates fall significantly — we show below some signs that this is happening — that increase in the number of women hitting peak reproductive ages will drive up the absolute number of births in the Jewish population.

A final consequence of these shifts in fertility by religion over the last several years is that the religious composition of births in Israel has also changed. This can be seen in Table 2, which shows the share of every 1,000 births in the 2016–2025 period by religion. From 2016 to 2022, the share of births to Jewish women fell from 73.9% of all births to 73.1%. As of 2025, it had climbed back to 74.3% of all births. Barring a sharp reduction in Jewish women's fertility, that share will rise more precipitously in the coming years as fertility rates in other religious groups continue to fall at a faster rate than in the Jewish population, and as the composition of the population at reproductive ages becomes more Jewish.

**Table 2. Religious composition of every 1,000 births, by year**

	Jews	Muslims	Druze	Arab Christians	Non-Arab Christians	Not classified
2016	739	207	13	11	4	26
2017	733	215	13	10	3	25
2018	734	213	13	11	4	25
2019	735	213	13	10	3	25
2020	733	216	13	10	4	25
2021	736	214	13	10	4	24
2022	731	219	12	9	4	24
2023	734	218	12	10	3	23
2024	736	219	11	9	3	21
2025	743	215	11	8	3	20

Note: "Not classified" refers almost wholly to Israel's "Other" population. Most are immigrants, or the children of immigrants, who are not halachically Jewish but have rights to citizenship through the Law of Return or through marriage.

Source: Alex Weinreb, Taub Center | Data: CBS

## Religiosity

The second axis of fertility change in Israel is by religiosity within the Jewish population. This has long been the dominant predictor of Jewish fertility levels in Israel (Friedlander & Feldmann, 1993). It also influences fertility in Israel's Arab population, though less definitively.

The most widely circulating estimates of fertility trends by religiosity in Israel are those of Hleihel, who combines administrative data on fertility with reported religiosity in the Israel Social Survey (ISS), updating estimates every couple of years. Here we supplement the latest Hleihel (2025) estimates, which include 2023 data, though these are folded into a three-year mean,<sup>4</sup> in two ways: first, by using TFR data from *yishuvim* with at least 10,000 residents, categorized by religiosity and extending through 2023; and second, by drawing on our own analysis of ISS data up to the end of 2024. Each of these data sources has

4 Hleihel (2025) folds the 2023 estimates into a three-year mean covering the 2021–2023 period. This is how Hleihel addresses the small sample issues in the Israel Social Survey, the source of his religiosity identifier. That is an effective solution for establishing a robust trend line. The cost is a loss of sensitivity to annual fluctuations.

advantages and disadvantages, and each complements the other's weaknesses. By using both, we provide a fuller picture of the context within which any war-related shifts in fertility occurred, in terms of religiosity.<sup>5</sup>

## Fertility across yishuvim

We generate a single measure of TFR for five predominantly Haredi cities or towns in the sample — Bnei Brak, Modi'in Illit, Beitar Illit, Elad, and Rechasim — by estimating a weighted mean of the TFR across these five cities. The weight is each city's population aged 20–49, that is, within the core reproductive age. We create an equivalent measure for cities that include substantial Haredi populations (based on the CBS "Haredi homogeneity index"): Jerusalem, Beit Shemesh, Ashdod, Tzfat, Ofakim, Giv'at Ze'ev, and Arad.

To provide a comprehensive picture of fertility by religiosity in Israel's Jewish population up to 2023, Figure 4 includes a suite of graphs combining both types of data on TFR since 2014. From left-to-right, they include the most recent estimates from Hleihel, estimated TFR in three core categories of yishuvim, and estimates across the largest cities (at least 200,000 residents) and secondary cities (100,000–199,999 residents).

All point to a slow and moderate reduction in fertility over the 2014–2023 period. This has occurred at all levels of religiosity, whether looking at the individual-level measure (Panel A) or the yishuv-level measure (Panel b). The reduction can also be seen in almost all major cities. In fact, as of 2023, the TFR in

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5 The key advantage of the yishuv data is that they contain data on all births in the 143 largest Israeli cities and towns, so are not affected by sampling error within those towns. This is particularly useful in discussions of Haredi fertility, since sampling error is the bane of all CBS survey data on Haredim. The key disadvantage of the yishuv data is they do not include data on 2024 or 2025. They therefore cannot tell us anything about the recent war-related bump in fertility. They also miss the smallest yishuvim where fertility tends to be a little higher and are officially within the ISS sampling framework. Robustness checks to compare the yishuv estimates to official national ones in 2014–2023 period show that missing these smaller yishuvim leads to an underestimate of actual TFR by 0.04–0.09 children. Since there are very few small Haredi yishuvim — Haredim are a disproportionately urban population — we can assume that the undercounting is concentrated among non-Haredi Israelis.

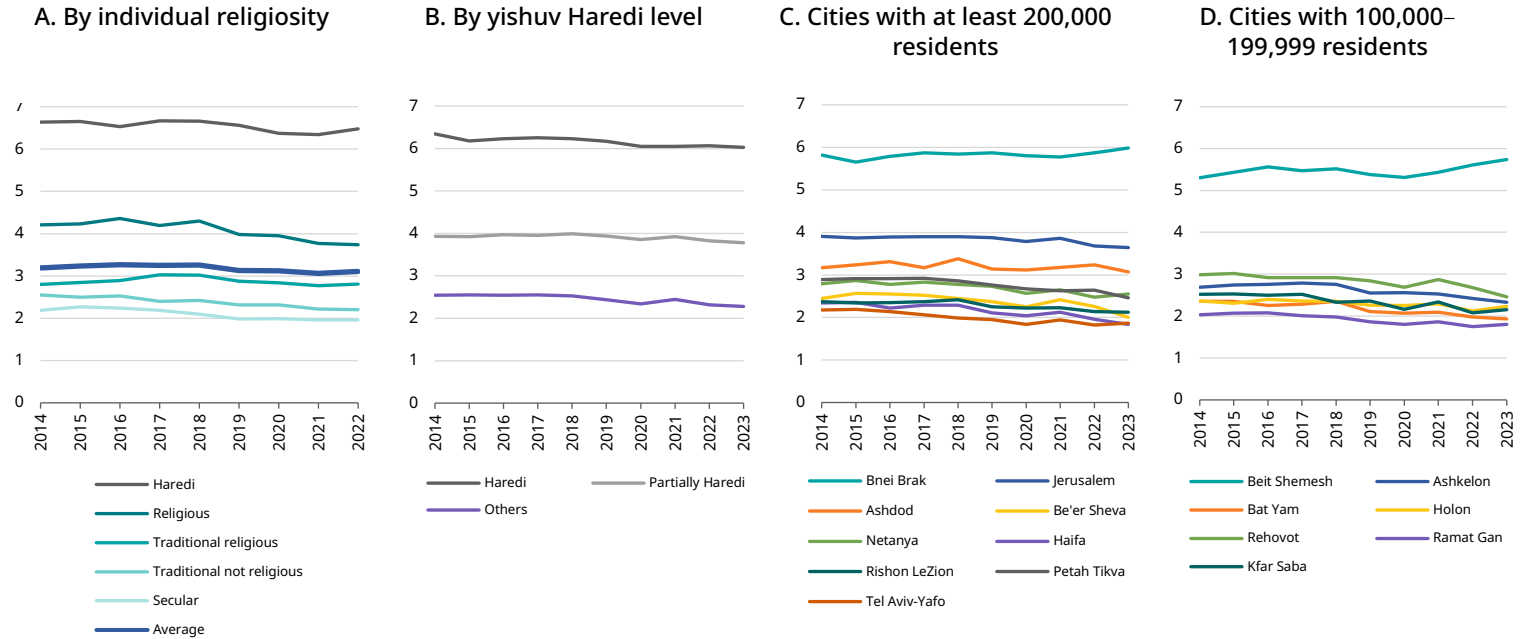
The key advantages of the ISS data are the more comprehensive sampling framework and the fact that data are available up to 2024. Unfortunately, we can capture only part of that war-related effect in the ISS data, since only births from July 2024 were conceived, on average, after October 7, 2023.

Tel Aviv, Haifa, Be'er Sheva, Ramat Gan, and Bat Yam were all at or below 2.0, and a number of others were hovering close. None of these cities were below 2.0 prior to 2018. In addition, cities that had a TFR close to 3.0 in 2014 — including Petah Tikva, Rehovot, and Netanya — had all fallen to below 2.5 by 2023.

In terms of individual city estimates, the exceptions to this general downward trend are Bnei Brak, Ashdod, and Beit Shemesh. However, each of these is included in the population-weighted averages in Panel B, in which there is a reduction. Specifically, the increase in Bnei Brak is outweighed by much larger reductions in TFRs in Modi'in Illit and Beitar Illit, and the increase in Beit Shemesh — likely driven by its increasingly Haredi composition — is outweighed by reductions in Jerusalem.

Even as fertility has fallen, the fertility gap between different levels of religiosity in these yishuv data has remained constant in absolute terms: Haredi Jews had around four more children than their non-religious (secular and traditional) counterparts in both 2014 and 2023. If that continues, it implies that the share of Israeli children being raised in Haredi communities and educated in Haredi schools will climb even faster than current projections suggest. Of course, how many of those children remain within the Haredi community is a different question.

**Figure 4. Total fertility rate among Jews, by religiosity (A, B), and in the large cities (C, D)**



Source: Alex Weinreb, Taub Center | Data: (A) Hleihel (2025); (B–D) CBS tables

## Fertility by religiosity in the Israel Social Survey

It is not possible to calculate measures of TFR from ISS data, so instead we focus on an alternative measure called “children ever born” (CEB), also by age group, replicating calculations on ISS data in five-year intervals beginning in 2004. This allows us to generate estimates of fertility rates in *real (birth) cohorts* instead of *synthetic cohorts* for a full two decades up to and including 2024.<sup>6</sup>

To smooth fluctuations stemming from sampling error across small groups we combine religious groups into a smaller number of categories. We use three categories of religiosity in the Jewish sample: “Haredi;” “religious;” including “traditional religious;” and “secular;” including “traditional not religious.” In the 2024 ISS data, these constitute 15.0%, 23.3%, and 61.7%, respectively, of the Jewish sample. We use two categories of roughly equivalent size in the Arab sample: “religious;” including a very small sample of respondents who self-identified as “very religious;” and “not so religious;” including “not religious.” Muslims account for 86% of the Arab sample overall, though they are 95% of Arabs self-identifying as “religious” and only 77% of those self-identifying as “not so religious.”

Initial measures across these five waves of the ISS are shown in Figure 5. To facilitate easier interpretation of each group, different numeric scales are used across the three Jewish/Other graphs.

Since age-specific fertility rates peak in women’s late 20s and early 30s, knowing fertility at these ages is the most important for predicting future levels of completed fertility. Specifically, reductions in fertility at ages 25–29 do not necessarily reduce completed fertility levels — that is, the number of live births a woman experiences throughout her life — since there can be a compensating rise in fertility in a woman’s 30s, especially the early 30s. Indeed, this is exactly what happened in Israel after the 1990s. The expansion of higher

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6 An example of a *real birth cohort*: women aged 20–24 in the 2004 ISS data were 25–29 in the 2009 data, 30–34 in 2014, 35–39 in 2019 and 40–44 in 2024. Combining these five waves of data therefore allows us to track the 25-year CEB history of women born in 1980–1984, albeit with a different random sample drawn from that birth cohort in each survey wave. The same five waves of data allow us to follow three other birth cohorts of women past peak fertility ages of the late 20s and early 30s. We follow those born in 1975–1979 and 1985–1989 for 20 years, and those born in 1990–1994 for 15 years. In contrast, a *synthetic cohort* measure, like the standard TFR, combines the age-specific measures collected in a single year (*cross-section*). Hence the fine-print that points to “assuming current age-specific rates remain constant.”

education helped raise the mean age at first birth among Jewish women by 2.8 years between 1994 and 2016 (Weinreb et al., 2018) but overall fertility levels remained constant and even climbed.

However, where CEB falls substantially at both ages 25–29 and 30–34, there is no historical case of which I am aware of a compensating effect at higher ages at the societal level, even if there is motivation to have more children. The main reason is biological constraints: there is an increasingly sharp decline in women's fecundability across their 30s (Menken, 1985), especially among nulliparous (i.e., childless) women (Rothman et al., 2013).

There are clear signs of a reduction in CEB in the 25–29 age group at every level of religiosity in both the Jewish and Arab populations. In all five groups, there are also signs of a reduction in CEB at ages 30–34, though in some — notably the Haredi and non-religious Arab population — this has only been since 2014.

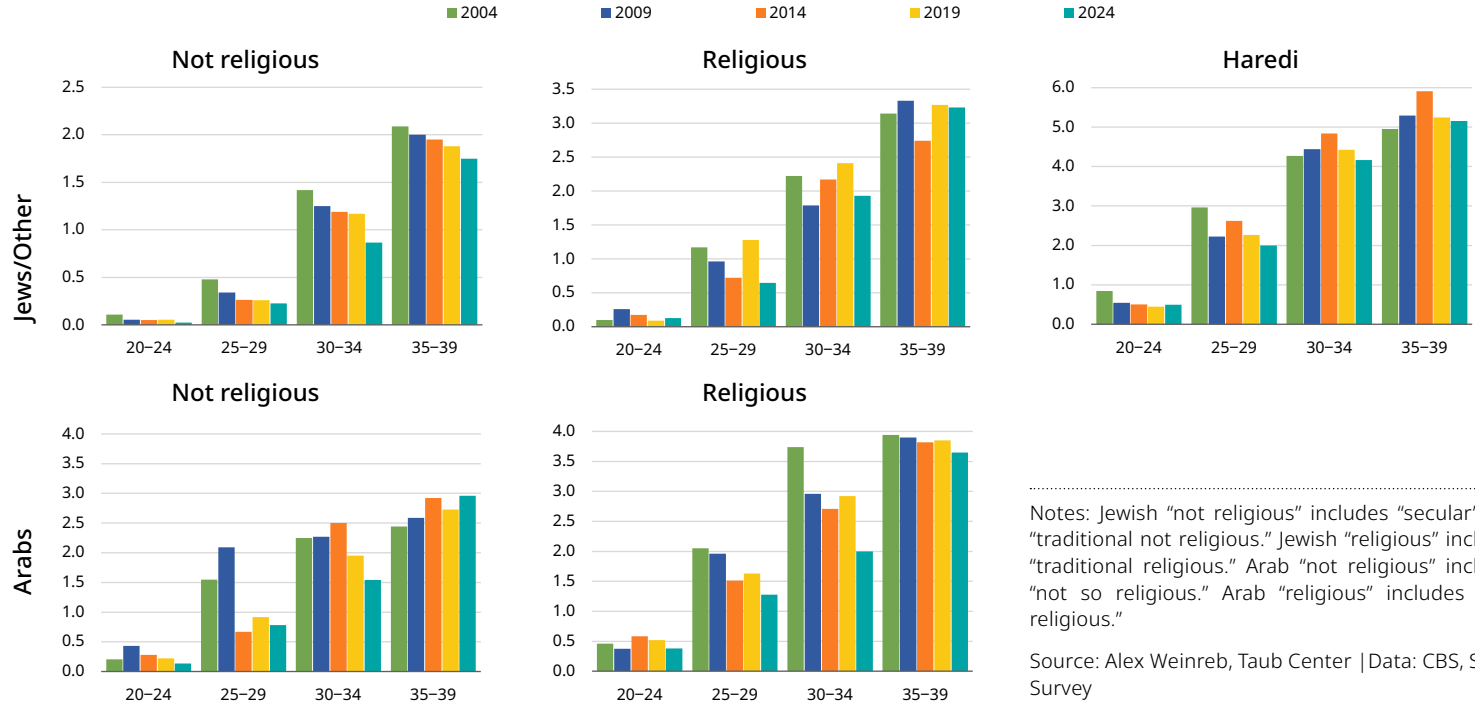
These are meaningful reductions. The average CEB of non-religious Jewish women aged 30–34 in the 2004 survey was 1.42 children (the standard error around this estimate is 0.045, so the value in the actual population should fall in the 1.33–1.51 range).<sup>7</sup> By 2019, it had fallen to 1.17 ( $\pm 0.102$ ) and, by 2024, to 0.87 ( $\pm 0.104$ ). This 0.3 child reduction in the last five years occurred despite the fact that there was no statistical difference in CEB in the same two birth cohorts measured five years earlier — 0.27 and 0.26 for women aged 25–29 in 2014 and 2019, respectively.

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7 Following standard practice, I define the range as the mean estimate  $\pm$  two-times the standard error (*SE*) of the mean. The *SE* is a measure of the precision of the estimate that takes into account both the standard deviation (dispersion of all values around the mean) and sample size. Given customary assumptions, there is a 95% probability that this range — called a *confidence interval* — will contain the true population mean. Formally, the *SE* is the standard deviation ( $\sigma$ ) divided by the square root of the sample size for that group ( $n$ ), that is:  $SE = \sigma/\sqrt{n}$ .

Smaller sample size is the main reason for the larger *SE* in the Haredi and Arab samples.

Figure 5. Children ever born, by mother's age, religiosity, and year



Notes: Jewish "not religious" includes "secular" and "traditional not religious." Jewish "religious" includes "traditional religious." Arab "not religious" includes "not so religious." Arab "religious" includes "very religious."

Source: Alex Weinreb, Taub Center | Data: CBS, Social Survey

Among Haredi women, the fall was even larger, though smaller sample sizes reduce confidence in the accuracy of those estimates. The average CEB of Haredi women aged 25–29 in the 2004 survey was 2.96 children ( $\pm 0.408$ ). By 2024, it had fallen to 2.0 children ( $\pm 0.45$ ). During the 2004–2014 period, the reduction in CEB at ages 24–29 — preceded by a similar reduction at ages 20–24 — was negated by a compensating increase in CEB among women in their 30s. Since 2014, however, there has also been a reduction in CEB among Haredi women in their 30s: from 5.91 ( $\pm 0.64$ ) to 5.15 ( $\pm 0.56$ ).

Consistent with the trends in Figure 3, these CEB data also point to substantial reductions in the Arab population. The CEB of religious Arab women at ages 25–29, in particular, fell from 2.05 in 2004 to 1.28 in 2024, and at ages 30–34 from 3.74 in 2004 to 2.0 in 2024. The CEB of non-religious Arab women at ages 25–29 is now less than 1, and at ages 30–34 has fallen from 2.5 in 2014 to 1.5 in 2024.

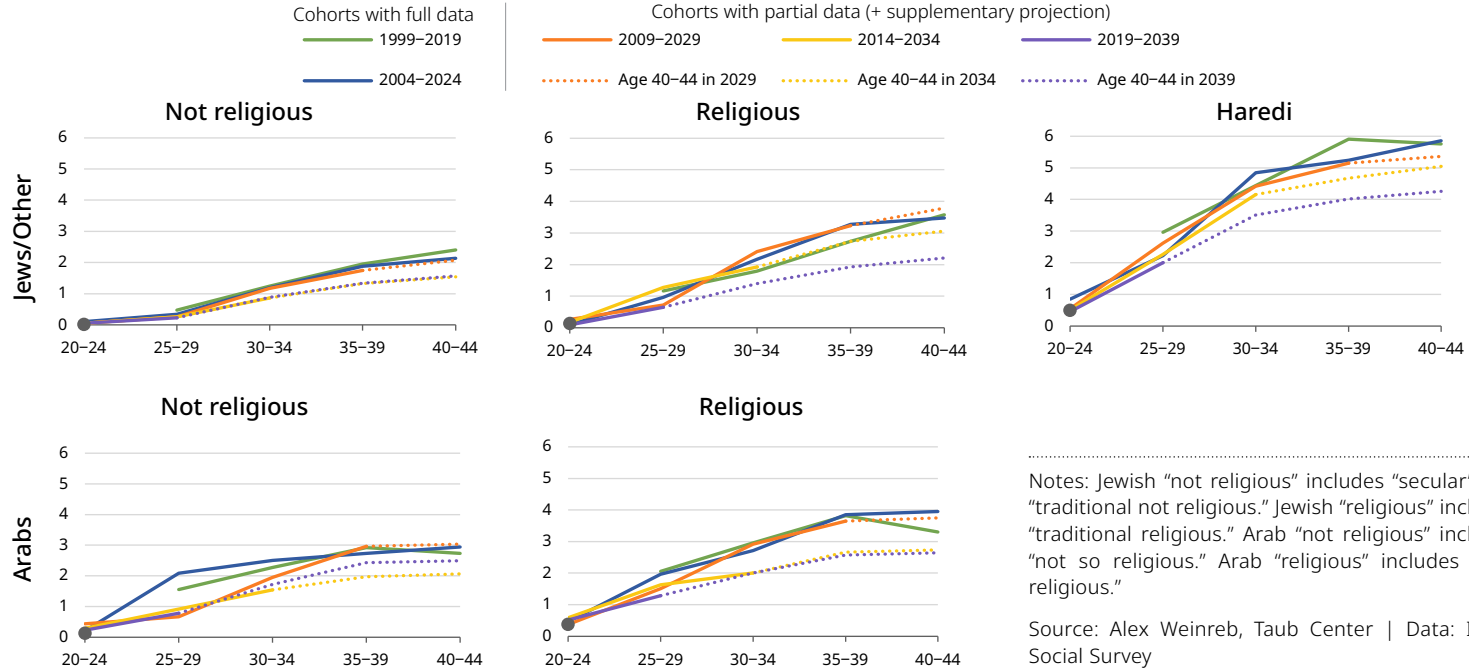
### Projecting completed CEB for younger cohorts

As a final exercise, we construct women’s birth cohorts from these data and project CEB by age for women aged 25–39 (in the 2024 data) up to the 40–44 age group for the same five subpopulations shown in Figure 5. We do this by first estimating a CEB age-pattern: the proportionate increase in CEB at age  $x$  at time  $t$ , relative to the CEB of the same cohort five years earlier (that is, at age  $x-5$  and time  $t-5$ ). We then project missing values for younger ages up to ages 40–44. This counts as a reasonable end point for women’s reproductive lifespan since there is very little fertility at ages 45+ at the population level. We do this by multiplying the reported CEB in the ISS survey by a factor that sums the relative increase in CEB between age  $x$  and  $x+5$  in the next two older cohorts.<sup>8</sup> Using the oldest cohorts would dilute any recent shifts in the CEB age pattern. Note, too, that we do not project fertility for women aged 20–24 in 2024 since they only have a single data point.

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8 Formally,  $CEB_{x,t} = CEB_{x-5,t-5} \cdot (F_{x,t})$  where  $F_{x,t} = (CEB_{x,t-5} + CEB_{x,t-10}) / (CEB_{x-5,t-5} + CEB_{x-5,t-10})$ .

**Figure 6. Children ever born, by mother's cohort, age and religiosity, including projections to age 40-44 for women currently aged 25-39, years cohort is aged 20-24 to 40-44**



The results of these estimates, shown in Figure 6 — this time with the same y-scale for all populations — point to the magnitude of the ongoing reductions in fertility in women’s late 20s and early 30s. Given those patterns, the average completed fertility rate at ages 40–44 for secular Jewish women in the mid- and late 2030s will be around 1.6 children. For religious women, the number will drop to around 3.1 then 2.3 among those reaching age 40–44 by 2034 and 2039, respectively. For Haredi women, the respective numbers of CEB will fall to around 5.1 and 4.3.

Trends in the Arab population are similar. Completed fertility of less religious Arab women will fall to around 2.5 and 2.1 for women currently in their early 30s and late 20s. That of their more religious counterparts will fall to around 2.7 for both cohorts.

In each of these cases, we can add 0.1 or even 0.2 children to allow for supplemental fertility in women’s mid- to late 40s. Even with those additions, CEB of younger cohorts will be much lower than those of their older counterparts. Those reductions are built-in, unless there is a sharp rise in fertility at older ages. There is no sign of such a shift in Figure 5 after 2014.

## Summarizing fertility

The remarkable stability in the annual number of births in Israel over the last ten years provides an illusion of stasis. Beneath those stable absolute numbers, the fertility rates of Jewish and non-Jewish populations have been falling sharply. Secular and non-religious Jewish women, in particular, are on the path towards completed fertility of around 1.7 children per woman. That is only slightly higher than the average current levels of fertility in northern European and north American countries.

The stability in the number of births is also disguising the fact that after a long and steady decline, the share of births that are Jewish has, in the last few years, started to climb. This is due almost solely to an increasing share of younger Jewish Israelis being born into religious and Haredi communities. Of course, and as noted above, how many of them remain in those communities through the life course is a separate question. Prior estimates, in need of updating, point to a net 15% movement out of the Haredi population between birth and early 20s (Weinreb & Blass, 2018).

## SPOTLIGHT

# Israel's Rate of Natural Increase Is Falling

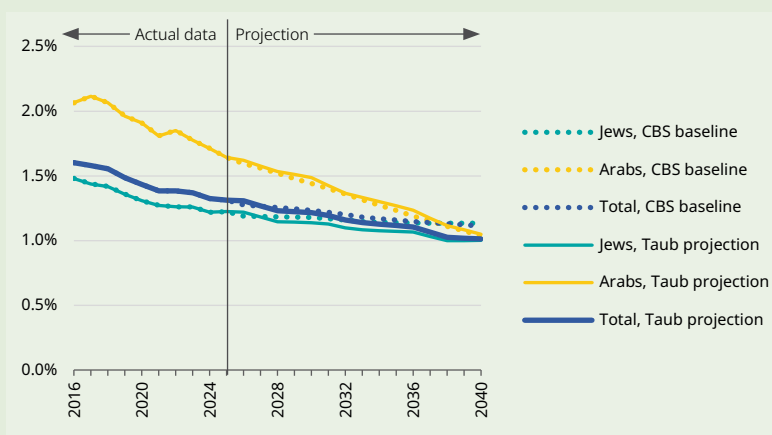
A population's rate of natural increase is the growth that stems from the difference between the number of births and deaths that occur in a particular time period, divided by the population at the beginning of the time period. In other words, it is growth absent any effect of migration.

Figure 7 presents Israel's rate of natural growth from 2016 to 2025, adding a projection to 2040 based on the anticipated number of deaths and births. The baseline population used for the projection is from a subset of Taub Center population estimates that do not include any contribution of migration. Those estimates were generated as part of the Taub Center's population projection model (Weinreb, 2020). For comparative purposes we also use the CBS medium-scenario population projection, even though these include migrants.

Between 2016 and 2025, Israel's annual rate of natural increase fell from 1.60% to 1.31%. The reduction was particularly rapid in Israel's Arab population, whose rate of natural increase fell from 2.07% to 1.64%. This was mainly driven by the stability in overall number of births as the number of deaths rose by 43% — following a rapid increase in the Arab elderly population. In the Jewish/Other population, the rate fell from 1.48% to 1.22%. This was a more moderate reduction because even though the number of births remained stable, the number of deaths increased by only 12%.

Figure 7 also shows that these rates will continue to fall in both major subpopulations. As a result, by 2040, Israel's annual rate of natural increase will be around 1.0%, with only minimal difference between Jews and Arabs.<sup>9</sup>

**Figure 7. Israel's recent and projected rate of natural growth (%), by subpopulation, 2024–2040**



Note: For any given period  $t$  to  $t+n$ , the rate of natural growth is:  $(Birth_{st, t+n} - Death_{st, t+n}) / Population_t$ . For convenience, we present these as annual percent growth.

Source: Alex Weinreb, Taub Center | Data: Taub Center projections of number of births and deaths, population without migration; CBS medium-scenario population projections

9 The divergence between the main projections (using Taub population estimates) and those using the CBS projections stems from the inclusion of migrants in the CBS estimates. Since migrants to Israel, like migrants in general, disproportionately arrive in early adulthood, they contribute more over their first 20 years (the timespan of these projections) to the number of births than to the number of deaths. That inflates rates of natural increase. In addition, since almost all net migration to Israel adds to Israel's Jewish population, the difference between the Taub and CBS-based estimates are much more notable in the Jewish population.

These trends are important because they point to a shift in the source of Israel's demographic growth. For almost two decades until the COVID pandemic, at least 80% of Israel's demographic growth in any given year stemmed from natural increase. The remaining growth stemmed from net migration. Over the last few years, that balance has shifted. The ongoing reductions in fertility and impending increases in the number of deaths mean that migration (positive or negative) will play a more significant role in Israel's future demographic growth than it has over the last 20 years.

This shift is moving Israel closer toward patterns of Israel's first decade — between 1948–1960, migration accounted for 65% of Israel's demographic growth (Raijman, 2009) — and toward standard demographic patterns in high-income countries. Nonetheless, it is important to emphasize that Israel is not completely converging to standard demographic patterns in those countries. In most other high-income countries, deaths either exceed births, making rates of natural increase negative, or the numbers of each are very similar. That means that other high-income countries depend on migration for any substantial demographic growth. In Israel, in contrast, births will continue to exceed deaths by a substantial margin for the foreseeable future. However, Israel will no longer experience 1.9%–2.0% annual growth as a matter of course. In fact, it will need positive net migration to maintain a growth rate exceeding 1.3% per year in 2025, 1.2% per year by 2030, and 1.0% per year by 2040.

These facts add to the importance of understanding Israel's migration patterns.

## Migration

Migration to and from Israel has been the least stable of the three components that drive demographic change in Israel. In 2024, for only the fourth time in the last century,<sup>10</sup> it drifted into negative growth. The number of people recorded as leaving Israel exceeded the number moving to Israel, including *olim*, by 26,000 people. Based on migration data from January until September, that net loss will be even larger in 2025: around 37,000 people.<sup>11</sup>

This drift into negative numbers looks like a major change in Israeli demographic patterns. It has certainly heightened anxiety about compositional shifts in the population, as did previous upticks in emigration. Since at least the 1970s, journalists, activist-researchers, and others have repeatedly claimed that Israel is losing a disproportionate share of its most educated people, and that this endangers the country's economic growth and future. Some of these claims have appeared in overtly activist venues (Lahis, 1980), others in peer-reviewed academic publications (Gould & Moav, 2007; Kass & Lipset, 1979). Countless others have appeared in the press: a search for "brain drain" in Israeli newspapers from the 1980s until the present conducted through the National Library's database yielded hundreds of articles. Among them are some from 20 years ago warning about the coming demise of the high-tech sector and subsequent fiscal collapse of the state.<sup>12</sup>

It is always unwise to dismiss contemporary concerns just because they echo older jeremiads since proven wrong. Equally, however, the fact that past prognostications on this issue have been wrong also cannot be ignored. In that vein, the principal goal in this section is to highlight five empirical findings that need to be part of any discussion of emigration in Israel: note that the initial focus is less on immigration, including *olim*.

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10 S. Della Pergola, personal communication, November 2025.

11 The 2025 data reported here are annualized from January–September 2025 numbers. We assume the same proportionate shift in 2025 between January–September and October–December that occurred in 2024. Formally, this can be represented as:

$$S_{2025}^{1:12} = S_{2025}^{1:9} \times \frac{S_{2024}^{1:12}}{S_{2024}^{1:9}}$$

Where  $S$  is the sum of annual migration across either 9 or 12 calendar months.

12 Analysis of the Israeli commentariat's cyclical anxiety about these patterns, which have at least some of the characteristics of what social scientists call a "moral panic" (media amplification, exaggerated public concern), would be a good dissertation topic in cultural studies or the sociology of science.

1. The number of Israelis leaving Israel, including Israel-born citizens, has been rising, while the number returning has been flat and, most recently, fallen.
2. The number of Israelis registered as leaving Israel will continue to be high until at least June 2026.

The remaining three findings qualify these first two in important ways.

3. Israel's emigration rates are generally low in international comparison.
4. Israeli emigration is disproportionately remigration of non-native-born Israelis.
5. Native-born Israeli emigrants are diversifying their destinations.

Together, these five findings show that there is more to Israel's current migration story than meets the eye. This also means that at least part of the conventional commentary on migration, especially emigration, is misleading. Sometimes observers appear to misread administrative statistics. Sometimes the administrative statistics are themselves misleading. Some of these problems stem from the inherent difficulty with measuring migration. That has been compounded by a recent shift in CBS measurement criteria for long-term migration. We describe these as we point to the most recent migration trends in the first section.

## **Shifts in how the Israeli census bureau measures migration affect published rates**

Meaningful discussions of trends in immigration and emigration need to be anchored in accurate measurement. Even at the best of times this is difficult in studies of migration because measuring migration is more complicated than measuring births and deaths, the other two core demographic components. The latter are one-time events. Migration is not: it is not typically measured at the specific time of departure; it can be circular; people who leave make frequent trips back, maintain local bank accounts, payments to national insurance, and so on. Formal emigration, in other words, is more processual

than dichotomous, which makes it more difficult to track using the categories favored by national statistical offices in Israel and elsewhere, and also more difficult to cleanly identify with a particular date.

A recent change in measurement criteria at the CBS — fully justified on methodological grounds — has just compounded this problem by making it more complicated to track trends in migration in Israel.

Until 2022, someone counted as having emigrated from Israel if they spent 365 consecutive days out of the country. They counted as having returned to Israel if they spent at least 90 consecutive days in Israel. In 2023, these flawed criteria were changed in two ways. First, the asymmetry was eliminated. Someone now counts as having emigrated from Israel if they spend 275 days in a given calendar year outside Israel, consecutively for the first 90 days. Likewise, they count as having returned to Israel if they spend 275 days in a given calendar year in Israel, consecutively for the first 90 days. Second, the reference year of the measure was shifted. Until 2022, migration data referred to the assumed day of migration (i.e., when someone was marked as having left or entered the country). Under the new method, the data relate to when the 275-day follow-up period ends.

Because this new method applies the same number of days to both in- and out-migrants, and is better suited to movements in the modern labor market, it yields a more valid measure of migration than its predecessor. The main problem is that it has markedly shifted migration rates.<sup>13</sup>

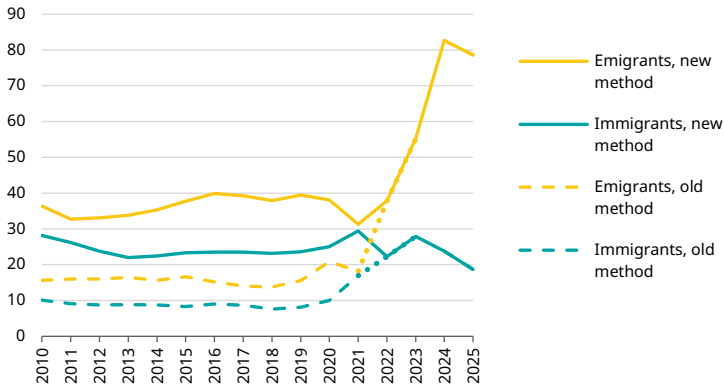
Figure 8 highlights these effects. In- and outmigration under the old method, whose final estimate covers 2021, were much lower than under the updated method. If someone naively combined those older estimates with the new ones, they would see a rapid rise in outmigration towards the end of the period, shooting up from around 15,600 in 2019 to 37,600 in 2022, 55,300 in 2023 and almost 83,000 in 2024. They would also see substantial increases in Israelis returning: from 8,100 in 2019 to more than 20,000 per year in the 2022–2024 period.

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13 Less serious, it has also created a discontinuity in the migration data times series: until the last few months, recent CBS migration tables have often skipped 2022. Here, I follow a special CBS report on migration in 2024 (CBS, 2024) and estimates in Eliyahu (2025).

**Figure 8. Trends in the number of Israeli emigrants and immigrants (not including olim), by method**

Thousands



Note: 2025 data are annualized from January–September 2025 numbers as per footnote 11.

Source: Alex Weinreb, Taub Center | Data: CBS

That naive reading is clearly flawed. Data on in- and outmigration from 2022 to 2025 can only be compared to estimates produced using the same methods. Across the 2010–2021 period, the new methods generate estimates of outmigration and return migration that are, respectively, 2.3 and 2.6 times higher than the old methods. They still point to a substantial increase in outmigration in 2023 that continued in 2024 and 2025, but 2022 is on par with outmigration in the 2015–2020 period: it is in the 37,000–40,000 range. Likewise, return migration rates are also much higher in the decade preceding COVID, but barring the slight bumps in 2021 (reflecting COVID) and 2023 (those who returned for the war), they are flat across all years. The number of returning Israelis has not increased in the last few years. On the contrary, whereas 2024 numbers were similar to the annual averages in the 2013–2018 period, the latest 2025 data point to a sharp decline to less than 19,000 Israelis (this is an annualized figure based on the number of returning Israelis recorded between January and September 2025).

It is unfortunate that the change in the CBS measurement criteria was introduced during a period of constitutional tension, war, and economic instability. Historically, emigration from Israel rises during those periods of disruptions (Cohen, 1988, 2011). In either case, Figure 8 makes it clear that all apparent increases in outmigration up to 2022 are an artifact of change in measurement technique. The real increase only began in the 2023 data — though those increases are substantial. The number of Israeli emigrants in the 2024 and 2025 data is double the number in the 2018 data. At the same time, the number of returning Israelis has not increased. Combining these emigrants and returning immigrants across these two years, we see that almost 120,000 more Israelis were recorded as leaving Israel in 2024 and 2025 than returned to Israel. This is not the true net migration rate — it does not include olim, who we shall add below. However, it is a historically unprecedented level of negative net migration for Israel.

## High emigration looks likely to continue into 2026

The migration data used above have a timeliness problem. The most recent data on emigrants and returning Israelis that we use are from September 2025. However, as noted above, those reflect movements that occurred at least 275 days (nine months) earlier, that is, in 2024. If our goal is to understand the most recent movements, that delay is a limitation.

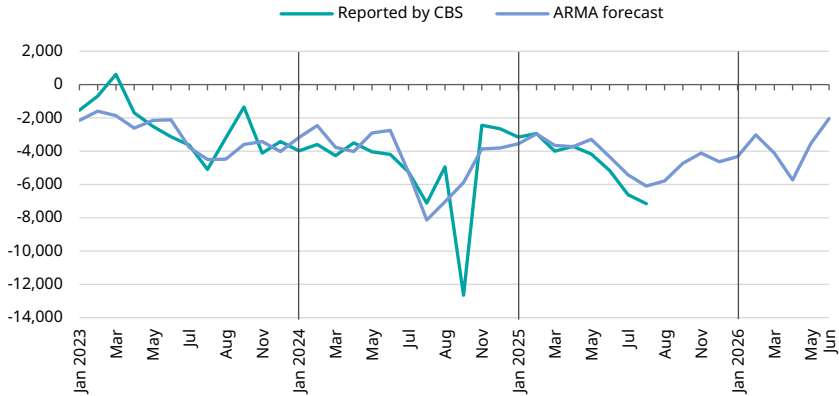
In an effort to help solve this timeliness issue, we project net migration nine months into the future by modeling the relationship between trends in the number of Israelis entering and exiting Israel and subsequent trends in official net emigration. The former are also published on an ongoing basis by the CBS and they reflect behavior a mere 1–2 months earlier.

We identify this relationship between the new CBS measure of net migration (from January 2023 until August 2025) and prior net exits of Israelis in a series of ARMA (Autoregressive Moving Average) models, described in the Appendix.

Using estimates from the optimal 11-month lag model, we predict net emigration both within the 32-month test sample and beyond it, up to June 2026. These estimates are shown in Figure 9 alongside the official emigration rate reported by the CBS. With the exception of sharp fluctuations in the reported statistic (e.g., in October 2023 and October 2024), the ARMA estimate tracks the official

data quite closely. This is confirmed by a high correlation coefficient of 0.72 calculated over the 32 months where both measures have values.

**Figure 9. Reported and predicted net migration by month, not including olim**



Source: Alex Weinreb, Taub Center | Data: ARMA models; CBS

The basic finding is that deterioration in the net migration into negative numbers over the first half of 2023 continued into 2024 and worsened considerably in the late summer and early fall of 2024, reflecting higher net emigration during the first four months of the war. Net migration improved (i.e., moved closer to zero) during the winter months and then started to deteriorate again by the summer of 2025.

The model projection suggests that net migration will improve somewhat from its very low point during the summer of 2025. However, projected net outmigration in the first half of 2026 will be higher, reflecting the larger streams of exits in the summer months. The projected monthly net emigration level of 3,800 people between January and June 2026 remains higher than the average observed level in the same months in 2025 (3,600) and 2024 (3,100).

Of course, these projections assume that the relationship between net entries/exits and subsequent emigration that existed over almost three years up to September 2025 — including in the pre-war period — holds into next year. Given the end of active hostilities in the war in Gaza, this need not be the case. In particular, migration activity tends to spike over the summer months, so if there is a shift in this pattern, it will only become noticeable in CBS tables in the spring of 2027.

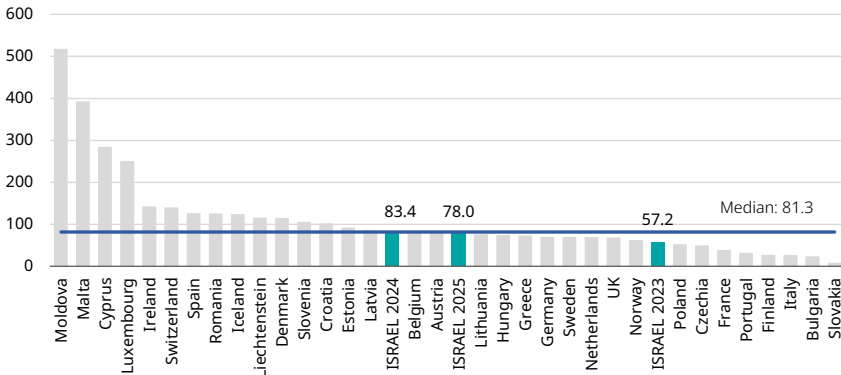
## Israelis' emigration in international comparison

Having established that outmigration in Israel climbed substantially in Israel since late 2023, we now ask how those higher Israeli rates compare to rates in other high-income countries.

This is important because a combination of globalization, liberalized borders, transnational networks, and mass displacement have led to a surge in international migration over the last few decades, what Castles and Miller (1993), in their frequently updated monograph, call the *Age of Migration*. It is an era in which high-income countries actively compete for high-skilled workers, increasingly try to convince their own emigrants to return (Bruzelius & Reiss, 2025), and also, in many cases, quietly allow the immigration of low-skilled workers in the hope of reducing labor costs in sectors — like agriculture and construction — where workers are scarce.

To look at how trends in Israelis' outmigration compare to those of other countries, we calculated the crude rate of outmigration (CROM) — the number of outmigrants in a given year divided by the population in the middle of the year — for all European countries in 2023, adding data for Israel in 2023, 2024, and 2025, using a combination of estimates presented in CBS (2024) and Eliyahu (2025). Results are shown in Figure 10.

**Figure 10. Crude outmigration rate in EU countries, 2023**  
Per 10,000 residents



Source: Alex Weinreb | Data: Israel: Eliyahu 2025; UK: ONS; All other countries: Eurostat Emigration by age group, sex and citizenship [migr\_emi1ctz\$defaultview]

Israel's CROM in 2023 was 57 emigrants per 10,000 residents. That is high by Israeli standards but relatively low by EU standards. Israel's CROM climbed to 83 per 10,000 in 2024, unusually high for Israel but only just above the EU median in 2023. Based on patterns annualized from January–September 2025, discussed above, its rate in 2025 should be around 78 per 10,000, so below the median.

This low CROM relative to other high-income countries is consistent with longstanding patterns. Cohen (2011) compared Israel's outmigration rates to those of other high-income countries — including after the previous spike in outmigration (associated with the Second Intifada). His conclusion still holds: "Considering Israel's population composition (high rates of foreign-born), security situation, and grim prospects for a lasting political settlement with the Palestinians, Israeli emigration rates are surprisingly low" (Cohen, 2011, 52).

## Remigration of foreign-born

The outmigration data shown thus far combine Israel-born citizens and foreign-born citizens. In terms of understanding migration, that is problematic because a one-time migrant is much more likely to *remigrate*, that is, migrate a second time. That happens because, at the individual level, migrations often fail, even when the migrant intended to stay in the destination country. Remigration can include both *return migration* (to one's country of origin) or what is variably called *onward* or *stepwise migration*: using a first destination as a stepping stone to a second location. Although this multistage type of migration is under-researched — data sources rarely track individuals across countries (Boissonneault & Costa, 2022; Della Puppa et al., 2021; OECD, 2024) — it is a well-known feature of modern migration patterns. Recent data from the OECD Migration Outlook point to five-year remigration rates in immigrant-friendly anglophone countries (US, Canada, Australia, UK) in the 10%–14% range. Historically, remigration rates were between 25%–40% in the US (Jasso & Rosenzweig, 1990).

## Remigration in general

Remigration is also a well-known feature of Israel's migration history — hence Cohen's reference to "high rates of foreign-born" in the quote above. It is one of the major explanations for the uptick in Israeli outmigration rates between 1990–2005: around 48% of the 230,000 Israeli emigrants in that period were immigrants from that period, mostly part of the enormous wave from the FSU (though those leavers constituted only around 10% of those who immigrated to Israel, suggesting 90% retention, which is high). Cohen (2011) mentions other examples: how some Persian Jews who fled revolutionary Iran in the late 1970s used Israel as a stepping stone to the US; and how some of the Argentine Jews who escaped the economic meltdown in the early 2000s subsequently returned home or moved elsewhere.

The most recent trends suggest that foreign-born, recent olim in particular, play an even greater role in recent outmigration. Between 2015 and 2020, the share of foreign-born Israeli out-migrants climbed from 45% to 55%. It was 56% in 2023, of whom 31% were olim from 2022, 7% olim from the 2018–2021 period, and 21% were olim from prior years (Eliyahu, 2025). The share of foreign-born Israelis among out-migrants climbed further to 58% in 2024 and then dropped back down to 48% over the first nine months of 2025.

That disproportionate presence of Israelis not born in Israel in the flow of emigrants leaving Israel is reflected in the stock of Israelis overseas. Again, this is a long-term trend. Cohen (2011) notes that of the 544,000 Israelis who resided outside Israel at the end of 2006, only 45% were born in Israel. Staetsky's (2025) more recent estimate, covering the 2021–2023 period, is 48% (of 630,000 Israelis living outside Israel).<sup>14</sup> We return to the stock of Israelis outside Israel below.

In general, these remigration statistics point to two distinct phenomena that help us understand recent Israeli outmigration. First, retention rates of olim are lower now than they were. Only 10% of the massive 1990–2005 wave of aliya had left by 2005. The share of 2022 immigrants who left in 2023 has already passed that threshold. More of them, in other words, appear to be what has been referred to as *opportunistic immigrants*. Or, perhaps, Israeli society has become less welcoming or effective at absorbing these immigrants.

Second, although they constitute a diminishing share of emigrants, in terms of absolute numbers, more native-born Israelis are also leaving. We address each of these in turn.

### **Remigration of non-Jewish olim**

The increasing remigration rates of olim — and on the flipside, their falling retention rates — appears to reflect the fact that an increasing share of Israeli immigrants over the last decade have been neither halachically Jewish (according to Jewish religious law) nor Arab: they mainly fall into Israel's Other population; a small share are categorized as non-Arab Christian. Rajzman (2009) reports that among olim from the FSU, in particular, only 5% of those who came in the enormous 1990 and 1991 aliya wave were not considered Jewish. This share rose, climbing above 50% of FSU olim from 1999 (the average across the period 28.4%, relative to 19.5% and 12.8% of olim from Ethiopia and Western countries, respectively).

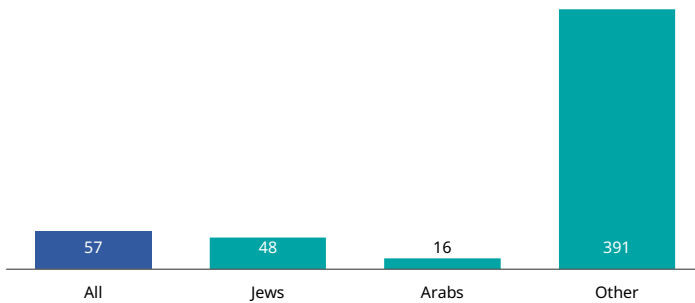
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14 The methods that Cohen (2011) and Staetsky (2025) use to produce these estimates are not identical. If we assume they are both generally correct, however, they suggest that the total population of Israelis living overseas grew by around 16% over the 2006–2021 period. In the same period, Israel's own population grew by around 33%. Israelis outside Israel are, in other words, a smaller share of the total stock of Israelis today than they were.

As the share of Other olim has climbed, so has the share of emigrants from this population (Eliyahu, 2025; Kaplinski, 2023). Non-Jews who were not born in Israel — these are virtually all in the Other population — constituted 29.6% of all Israeli emigrants in 2023, 33.7% in 2024, and 27.8% in the first nine months of 2025, relative to around 15% between 2012 and 2018. These high percentages should be understood in relation to the share of Israel's total population that is classified as Other: respectively, 4.9%, 4.8%, and 4.7% in those years.

Figure 11 converts the 2023 data into a CROM — the number of outmigrants relative to the baseline population — for Israel as a whole and for each of Israel's three major populations.

**Figure 11. Crude outmigration rate per 10,000 residents, by subpopulation, 2023**



Source: Alex Weinreb | Data: Outmigration data from Eliyahu (2025); Population data from CBS

Around the 2023 CROM of 57 Israelis for every 10,000 residents (as per Figure 10), there is enormous variation by subpopulation. For every 10,000 Jews, including Jewish olim, 48 emigrated in 2023. For every 10,000 Arabs, 16 left. For every 10,000 Others, 391 left.

## SPOTLIGHT

# A Sharp Reversal in the Other Population's Growth

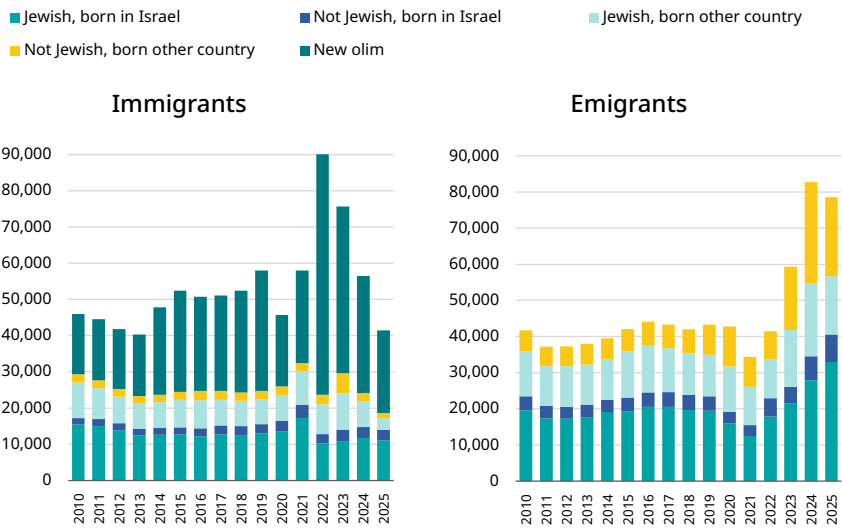
The disproportionate emigration by Israel's Other citizens has affected the size of that population. In the 2015–2019 period, Israel's Other population grew faster than any other subpopulation in Israel, including the Haredi population — annual growth rates surpassed 5% in 2017, 2018, and 2019. Yet from August 2022 to August 2024, despite large-scale immigration from the FSU that included people not halachically Jewish, the Other population fell by 22,400 people. By September 2025, despite ongoing high levels of aliya from the FSU (15,021 people) and roughly 1,000 more births than deaths (3577 births, 2566 deaths) in the same 12-month period, the Other population had fallen by an additional 10,000 people.

## Net migration

We summarize these trends from 2010 to 2025 in Figure 12 for both immigrants and emigrants (the 2025 estimates are annualized from January–September 2025 data, as explained in footnote 11). As reflected in our comments thus far, the big story is emigration. Emigration of native-born Israelis has been rising steadily for the last four years. The increase in the first year was after an artificially low rate in the COVID year, but increases over the last three years are real. That is true of native-born Jews and native-born non-Jews: available data do not allow us to differentiate whether the latter are Arab or Other.

Relative to the averages in the 2014–2022 period, emigration in the two other categories (Jews or non-Jews born in other countries) has also dramatically increased. Relative to their share of the population, these are high rates of outmigration, especially for non-Jews born outside Israel.

**Figure 12. Immigrants and emigrants, by type, whether born in Israel and whether Jewish**



Notes: All groups other than “New olim” refer to Israeli citizens. Data for 2025 are annualized based on the ratio of annual number to January–September in 2025.

Source: Alex Weinreb, Taub Center | Data: CBS

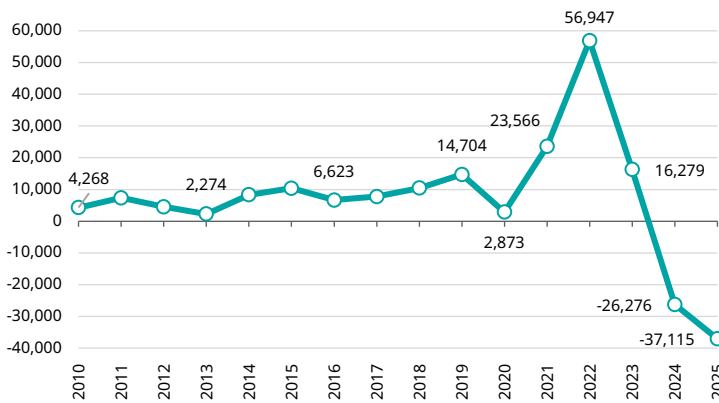
There have also been important fluctuations in immigration. The absolute number of returning native-born Israelis fell from 2010 to 2013, and was then relatively flat until 2020. A temporary COVID-related bump in 2021 gave way to a reduction in 2022, with small increases since then: more returning Israelis in 2023 and yet more in 2024: at the current pace, 2025 will be between these two years.

Even larger fluctuations can be seen in the number of olim. After a slow and steady increase in net migration from 2013 to 2019, it fell sharply in 2020, then rose dramatically in rebound year 2021, even more sharply in 2022 as the Russia–Ukraine War broke out, and then fell precipitously from 2023. Based on aliya rates over the first nine months, the number of olim in 2025 will be the lowest since 2013 (barring COVID year, 2020).

These joint shifts in emigration and immigration also reduce estimates of net migration. These are shown in Figure 13 (estimated in accordance with the CBS current method). Note that this is a graph of Israel's *true net migration* since it includes new olim in the immigration category. The figure highlights the dramatic fluctuations in Israel's net migration over the last five years: from a net gain of 23,566 in 2021, to 56,947 in 2022, 16,279 in 2023, to net losses of 26,276 in 2024, and a projected 37,115 in 2025. Assuming that emigration continues to remain high into 2026 — as implied by the ARMA-based projection shown in Figure 9 — Israel will experience a third consecutive year of negative net migration in 2026.

**Figure 13. Israel's true net migration**

Thousands



Notes: The true net migration includes olim as immigrants. Data for 2025 are annualized.

Source: Alex Weinreb, Taub Center | Data: CBS

This ongoing negative net migration will pull down Israel's overall population growth rates. Figure 7 implies that the natural growth rate in 2025 and 2026 will be around 1.3%. A net loss of some 37,000 people will pull down the overall population growth rate in 2025 to 0.9%. That is less than half of the average annual growth rate in the decade preceding COVID. It is a major transformation in Israel's demographic regime.

## Where do Israelis go?

To interpret the increase in the number of native-born Israelis leaving Israel in 2023–2025, we need to look at prior migration patterns of Israelis. This is difficult to do with Israeli data because the CBS does not publish data on where Israeli citizens live overseas, nor does it publish data on Israeli citizens' circular migration patterns, though these could be estimated quite easily using information on individuals' arrivals and exits.

To gain some perspective, we draw on data from other countries. Direct counts of the number of Israel-born residents — though not Israeli citizens born elsewhere — can be found in data on “Stocks of foreign-born population” in other countries' population registers or censuses. Where censuses are used, intercensal estimates can be extrapolated from large-scale nationally representative survey data (e.g., Labor Force Surveys or the US Current Population Survey).

By definition, these measures of the *stock* of people who live outside their birth country in any given year is the sum of all the *flows* from the birth country over time minus anyone who has died or returned to their birth country. Here, we use those data in two ways. First, we estimate the percentage of Israel-born citizens who live outside Israel and look at shifts in that share over a three-decade period. We also compare Israel on these measure to other countries. This is important given the transformation of global migration patterns over the last few decades. Second, to get a sense of change in Israeli emigration patterns, we look at year-on-year shifts in the number of people born in Israel recorded as living in European countries and anglophone countries worldwide.

## The percentage living outside their country of birth

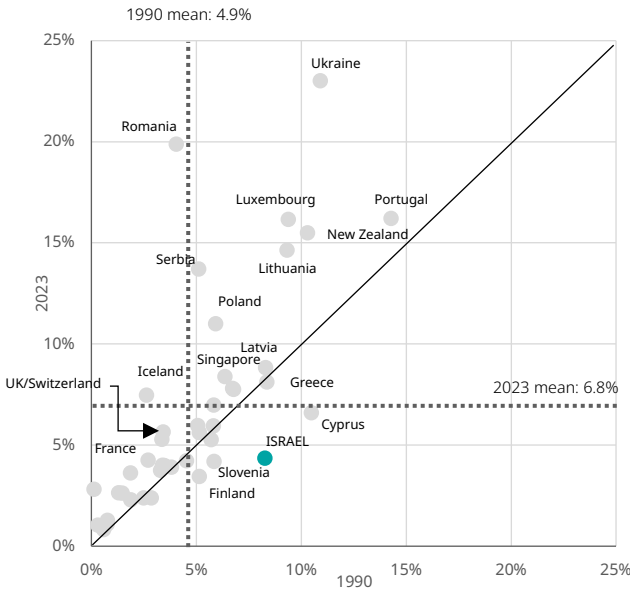
The UN Department of Economic and Social Affairs (DESA) collates data on country of birth and country of residence into discrete tables covering: (1) the total number of immigrants, which it defines as people not born in the country in which they are a resident; and (2) the total number of emigrants, which it defines as people born in a given country that now live in another country. Here we use these estimates from 1990 and 2023. In each of these years, we calculate the share of native-born who are living outside the country.<sup>15</sup> To look at the country-specific change in the stock of migrants across that 33-year period — from which we can partly infer shifts in the flow — we graph these on a scatterplot, seen in Figure 14. The horizontal axis is the percentage of native-born living in another country in 1990. Across these countries, that mean percentage, indexed by the dashed vertical line, was 4.9%. The vertical axis is the percentage of native-born living in another country in 2023. Across these countries, the mean had risen to 6.8% (the dashed horizontal line).

The diagonal line is where a country would fall if the same percentage of native-born were living outside the country in both periods. Given the increase in the mean, it is not surprising that most countries are above that line. In most, the increase was no more than a couple of percentage points. Yet some — a cluster in Eastern Europe and some small states like Luxembourg, Iceland, and New Zealand — experienced an increase of more than 5 percentage points over these decades in the share of their native-born who reside outside the country.

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15 For any given country in year  $t$ , the share of native-born living overseas is:  $E/(P+E-I)$ , where  $E$  is the total stock of emigrants,  $P$  is the total population, and  $I$  is the total stock of (foreign-born) immigrants who are resident in the country, all measured at time  $t$ .

**Figure 14. Percentage of the native-born population living overseas, 1990 and 2023**



Notes: Sample comprises 42 OECD and other European countries. The dotted lines represent the median value in each year.

Source: Alex Weinreb, Taub Center | Data: Immigration data from DESA/Our World in Data; Population data from UN Population Prospects

Israel is at the other end of the continuum. It is one of only four countries in this sample — the others are Finland, Slovenia, and Cyprus — that experienced a significant reduction in the percentage of people born in the country who now live elsewhere. In fact, Israel's reduction — from 8.3% of all Israel-born living outside Israel in 1990 to only 4.3% in 2024 — was the largest drop in this share (Cyprus was a close second). This is consistent with Israel's generally low outmigration rates shown in Figure 10. It suggests that Israel has actually been more successful at retaining its native-born over the last three decades — or having them return after a sojourn overseas — than it was in the prior decades. That is in spite of the frequent and aggressive belittling of Israeli emigrants (*yordim*, literally,

citizens who *go down* from Israel, but implicitly more about *abandoning* Israel) in those earlier decades. In the 1970s, Yitzhak Rabin famously referred to them as “moral lepers,” “the fallen among the weaklings,” and the “dregs of the earth” (Gold, 2004).

## Where do Israel-born emigrants live?

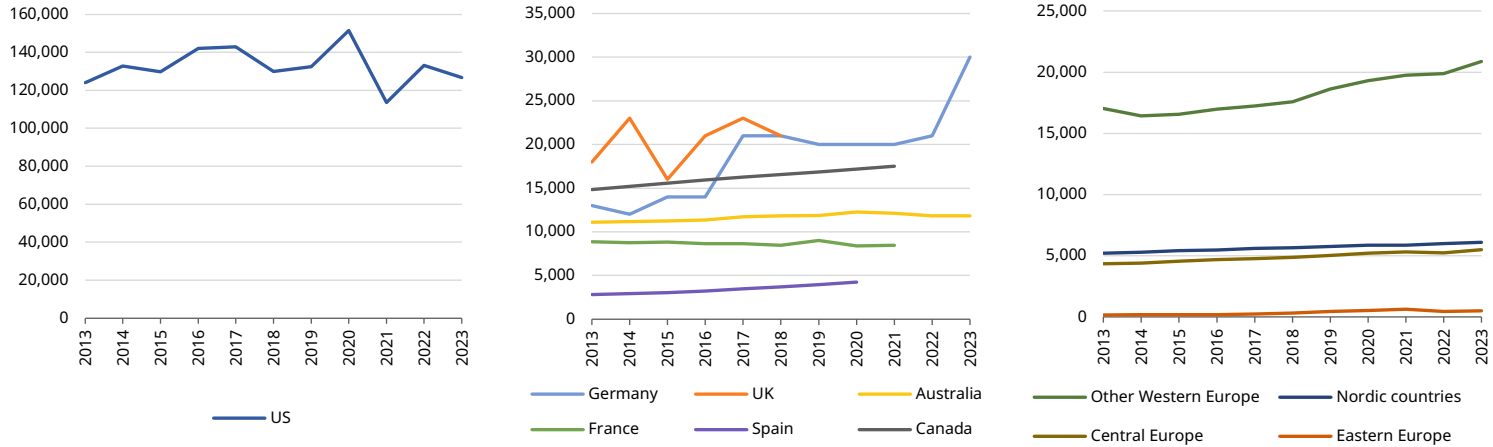
Here we draw on data from the International Migration Database’s stocks of foreign-born population, supplementing those with country-specific data for Canada. Figure 15 presents these data from the 2013–2023 period. They include data from all OECD countries with the exception of Costa Rica, Japan, South Korea, Poland, and Portugal.<sup>16</sup>

Given the high number of Israelis leaving in the 2015–2019 period, shown in Figure 12, we would expect to see a steady rise in the number of Israel-born residents abroad, with a noticeable increase in 2023. To some extent, this can be seen in Figure 15. Among countries with data in all years, the number of resident Israelis increased by 11.1% over the 10-year period. This confirms that there has been ongoing net movement of native-born Israelis overseas, even if it has grown slower than Israel’s own population in the same period (21.9%) — this gap is consistent with the falling share of Israel-born living abroad, shown in Figure 14.

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16 Some press reports claim that large numbers of Israelis have settled in non-OECD countries. Notable examples are Cyprus and Thailand (Kan, 2024, 2025; Zehavi, 2025). Thus far, these are not reflected in data reported by those countries’ national statistical offices or in data reported by international organizations. However, informal estimates for Cyprus appear consistent with these reports, pointing to around 15,000 resident Israelis and Jews in Cyprus, with 400–500 families moving to Cyprus every year, though many of these are also temporary relocations (ICCO, 2025). Estimates for Thailand are much lower. Despite the large number of Israeli visitors to Thailand — roughly 280,000 entries in 2024 — and a rise in war-related temporary relocations, the Israeli embassy in Bangkok estimates between 5,000–10,000 Israeli residents in Thailand, though legal impediments mean that the majority of these do not have long-term residence rights (Aharoni, 2025; Sadeh 2025).

**Figure 15. The number of Israel-born residents of OECD countries, 2013–2023**



Notes: Canada estimates for 2013–2015 and 2017–2020 are interpolated from Census values in 2011, 2016 and 2021. In the right-hand panel, “Other Western Europe” comprises Belgium, Italy, The Netherlands, Switzerland, and Luxembourg; “Nordic countries” comprises Denmark, Sweden, Norway, Finland, and Iceland; “Central Europe” comprises Austria, Czechia, Hungary, and Slovakia; “Eastern Europe” comprises the Baltic republics and Slovenia. No data are available for Japan, South Korea, Poland, or Portugal, and only partial data are available for other OECD countries, including Greece.

Source: Alex Weinreb | Data: Canada: [www.statcan.gc.ca](http://www.statcan.gc.ca); all other countries, International Migration Database stocks of foreign-born population

More interesting is where these increases occurred. Across the 2013–2020 period, the number of Israel-born residents in the US — home to more native-born Israelis than live in all other foreign countries combined — increased by 25,000. However, the number of Israel-born US residents then fell substantially during COVID and only returned to its 2013 levels in 2023. Trends have also been relatively flat in Australia and, within the shorter time-series of available data, in France and the UK, the countries with the largest Jewish communities in Europe.

In fact, the biggest story in these data is the growth of the Israel-born population outside the US and the other major Jewish population centers. Germany is the stand-out case among countries with data (Cyprus, covered in footnote 16, is another). The Israel-born population in Germany climbed from around 13,000 in 2013 to around 21,000 in 2022. That is an annualized growth rate of 5.3%. It then leapt by 9,000 people in 2023 alone.

In absolute terms, Canada and a small group of (continental) Western European countries come next. All experienced slow and steady increases across the 10-year period (extrapolated in Canada from census data in 2011, 2016, and 2021), equivalent to around 2.0% per year. In the Western European bloc, this growth is driven by trends in The Netherlands and Switzerland — trends in Italy and Belgium were, like in France, flat.

In percentage terms, growth was higher in Central European countries (comprising Austria, Czechia, Hungary, and Slovakia) — 2.4% per year — though the low baseline meant the absolute effect was minimal. The number of Israel-born residents of Nordic countries changed the least over the 10-year period.

This increasing diversification in Israeli emigrants' destination is important for two main reasons. First, as others have noted (Staetsky, 2025), Israelis are restocking smaller Jewish communities outside Israel. This points to an intriguing recasting of Israel's role in Jewish communities globally that has potentially important implications. Specifically, the movement of more Israelis out of Israel may signal Israel's emergence as a metropole in the global Jewish community: a source of people and new forms of cultural capital in communities that have been aging and shrinking, and, without this influx, would be unsustainable in the long-term.

Second, the increasing diversification in Israeli emigrants' destination is also relevant to the education-migration debate, that is, to the idea that Israel is

losing its best and brightest. A longstanding and empirically robust assertion in research on migration is that the most skilled migrants head to economies that give the highest returns to those skills. For Israeli migrants historically, those have been anglophone countries with higher levels of income inequality, especially the US (Cohen, 2009). Less skilled Israelis, in contrast, have tended to migrate to countries with less income inequality and stronger welfare systems: Scandinavia ranks highest in this regard, and continental Europe just a little lower. Looking at Israelis' migratory destinations at the population level, in other words, tells us something about migrants' skills and motives — the two characteristics are related.

This shift in Israelis' destinations over the last decade suggests that emigrants' selection on education, i.e., that the emigrants tend to be highly educated, is becoming less pronounced. Clearly, this assertion needs to be tested much more rigorously before we can say whether that is the case with real confidence. That said, this implied attenuation of a narrowly focused economic motivation for migration is consistent with a recent survey of Israelis' migration intentions fielded by the Israel Democracy Institute. It showed that reported motives are related more strongly to lifestyle and political factors than to traditional economic concerns (Yohanani et al., 2025).

## Summarizing migration

More Israelis have left Israel over the last few years than ever before. While most of those are not native-born Israelis, and roughly a third are not Jewish, native-born Israelis have also been leaving in increasingly large numbers. By international standards, that emigration rate remains low but it is high by Israeli standards.

That emigration is a loss, at least in the short-term, though it may have networking benefits in the long term. Whether it becomes a loss in the long term depends, primarily, on how many of those leavers return, and what their skill sets are relative to what they were at the time of leaving. That is also a key finding in the scholarly literature on migration. The international migration of skilled workers can augment local capital by providing access to higher level skills, better networks, and more capital. Back-and-forth movements of this kind have allowed Israeli academia to maintain its high quality.

They also at least partly explain Israel's top-ranking in the 2025 Global Innovation index — first in VC funds received and, subsequently in overall research and development (R&D) expenditure, university-industry R&D collaboration, and R&D performed by business.

Thus far, the increase in the number of people leaving Israel since 2023 has not led to an increase in the number of returning Israelis. But, in all fairness, it is too early to expect an uptick in returns. Assuming that some of the outmigration was related to the war, returns that began at the earliest in November 2025 will only become visible in CBS data on long-term migration in August 2026 (275 days after people's entry into the country). Given that families tend to migrate during the summer months, data on returning Israelis will not be fully clear until April 2027.

At the same time, other changes are afoot internationally that could affect Israelis' migration patterns. In recognition of high levels of outmigration in this *era of migration*, an increasing number of high-income countries have enacted "Emigrant return policies" (ERPs) (Bruzelius & Reiss, 2025) that both build on and, in some cases are a response to, longstanding policies designed to attract skilled people from wherever, Israelis among them (Brücker et al., 2012; Czaika & Parsons, 2017). The ability of some to work virtually, in combination with much lower housing costs than in Israel, may provide an extra incentive for some Israelis to relocate, especially to close countries with easy flight connections. This "lifestyle migration" may explain a large part of the rapidly rising Israeli populations in European countries, notably Germany and Cyprus.<sup>17</sup>

On the other hand, many potential destinations are becoming less attractive. One reason is the rise in antisemitic incidents in almost every high-income country with a Jewish community — a bloc of Central European countries, notably Hungary and Czechia, are exceptions. That rise has embittered the experience for Jews in general, and perhaps especially for Jewish Israelis, who are less inured to such phenomena. It is inaccurate to see this only as a post-October 2023 phenomenon. As we document in a forthcoming paper, incidents have been climbing almost everywhere for the last 20 years. The post-October 2023 surge is merely the latest and most serious.

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17 Y. Harpaz, personal communication, November 2025.

A final reason that emigration may become less attractive for Israelis is that many countries, in Europe in particular, are facing economic and political uncertainties associated with aging, fiscal crises, rising debt, and even falling credit ratings that are pushing up the cost of borrowing and creating inflationary pressure. Alongside the growth in nativist political parties that are not only anti-immigration but also often have somewhat ambivalent attitudes to their small Jewish minorities, these factors may make countries both less attractive to Israelis and to existing Jewish communities.

In summary, just because Israel has long enjoyed net positive migration does not mean that those positive rates will continue in an era in which *a good life* is seen to be too expensive in Israel (for poorer Israelis who lack family wealth or migrants with less capital), and where there are notable inequalities in civic obligations alongside societal divisions. On the other hand, just because Israelis have become used to being able to move to places where they can freely and openly identify as Israeli does not mean that they will continue to be able to do so.

In either case, it would be good if Israeli policy makers could consider extending the relatively effective “managed migration framework” that it applies to incoming migrants — special programs for particular types of olim and comprehensive bilateral agreements for labor migrants in agriculture, construction, and care — to returning Israeli emigrants. A recent Knesset report reviewing comparative *Policies to Attract Highly Skilled Migrants* shows some potential move in this direction (Kfir Oren, 2025). It would also be especially useful if Israel’s CBS could make available individual-level data on migrants: those who have left and those who have returned. Only with those types of data can we give more unambiguous answers to critical questions about contemporary migration patterns: the characteristics of those who move and return.

## Conclusions

Over the last couple of years, Israel has entered a new period in its demographic development. This is expressing itself in two ways. First, Israel has passed its peak period of natural growth. The coming decades will see those natural growth rates fall towards 1.0% per year as large cohorts age into their 70s and 80s, raising the number of deaths in any given year relative to the number of births. Of course, the number of births will also continue to rise in the foreseeable future, at least in the Jewish population. However, as fertility rates continue to fall, any increase in the absolute number of births will increasingly be driven by *population momentum* — that is, by the rising number of women entering reproductive age. Eventually, that effect will also slow.

Second, Israel has entered a period of negative net migration even when we consider the *true net migration rate*, that is, when we include olim in the flow of immigrants. This is a marked break from past patterns. Israel has long experienced negative net migration when it ignores olim in the entry side of the demographic ledger but not in the exit side — the typical net migration that appears in CBS tables (since the leavers are *Israeli* when they exit the country). However, negative true net migration rate is unusual. To experience it two years running and, based on our projections, for three consecutive years, is unprecedented. It means that Israel's growth rate of 0.9% in 2025 is not a one-off.

In itself, this reduction in demographic growth is not necessarily bad. It may reduce pressure on the real estate market — indeed, it may already have contributed to the recent reduction in housing prices — and have some other Malthusian benefits. However, any final judgment of this attenuated growth can only happen after we know more about the relative characteristics of who is leaving Israel, who has remained, and who is moving to Israel. Without that information, any claims about net gain and loss will only be partial and, therefore, more about rhetorical spin than empirical substance.

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## Appendix

### ARMA model for predicting net migration from Israelis' total entries and exits

We smooth the variables on entries and exits over a 2-month period to remove some of the major wartime fluctuations. We also build in a month-long lag to account for the later return of Israelis leaving for a vacation or work trip. The specific variable capturing net entries/exits is:

$$\text{Entries}(\text{month}_m + \text{month}_{m+1}) - \text{Exits}(\text{month}_{m-1} + \text{month}_m)$$

Consistent with intuition, a positive value points to more entries than exits into Israel and a negative value to more net exits.

The ARMA models take the form:

$$Y_m = \beta_0 + \beta_1 X_{m-n} + \varphi Y_{m-1} + \epsilon_m + \theta \epsilon_{m-1}$$

where  $Y$  is the official CBS measure of net emigration covering 32 months from January 2023 until August 2025;  $X$  is the monthly net exit measure described above, covering September 2021 to August 2025; subscript  $m$  indexes the month, subscript  $n$  an unspecified number of months (intentionally varied across the series of models), and  $\epsilon_m$  is a standard error term.

The other two terms get to the heart of the ARMA model advantage over standard lagged regression.<sup>18</sup>  $\varphi$  is an autoregressive coefficient that captures the persistence of trends (positive or negative) in  $Y$  in consecutive months, meaning that if  $\theta > 0$  and last month's net exits were high, this month's exits will also tend to be;  $\theta$  is a moving average coefficient that captures very short-term shocks, so a surprise last month will also influence this month's value.

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18 All steps taken here were replicated using lagged linear regression. It identified the same general trends as the ARMA model, but model fit statistics of model-based predictions (described below) fell short of the ARMA. We therefore do not discuss the lagged regression.

We estimate a series of these models varying the lag between net exits and subsequent net migration from 8 to 13 months. Note that because this variable is smoothed over a 2-month period and contains a one-month lag for returns, the 8–13 month lag refers to the final return date: it is actually a 10–15 month range from the first exit month in the predictor variable.

Wald  $\chi^2$  tests confirm that the best-fitting lag between net exits and net emigration is 11 months (meaning 13 months from the first exit month). The specific  $\chi^2$  scores were all below 16 where the lag is less than 10 months, surged to 265 with an 11-month lag, then dropped to 40 where the lag was 12 months, and dropped further for longer lags.





# MACRO-ECONOMIC TRENDS



# Is the Israeli Economy Recovering?

Benjamin Bental and Labib Shami

## Introduction

Last year's annual Taub Center report examined the impact of the first year of the war that erupted following the horrific October 7 massacre (Bental & Shami, 2024). Most of the assessments included in that review — and the implicit hope expressed in it — were based on scenarios in which the war would end quickly. At the time of writing, it appears that the intensified fighting in the Gaza Strip has indeed come to an end. The survey below points, in general, to a relatively stable economy in the face of the fighting in Gaza and against Iran. The stabilization of the security situation and the possibility of reaching regional arrangements create a positive atmosphere and raise hopes that the economy will return to a growth trajectory similar to that which prevailed before the war.

As in previous years, this review addresses ongoing events and their effects, but also the fundamental structural problems of the economy, which remain unchanged — chief among them, low labor productivity and high price levels. These two weaknesses are connected. In particular, addressing the problem of labor productivity would help narrow the gap between the cost of living in Israel and that of the countries we aspire to resemble. Policies that raise labor productivity require large-scale infrastructure investment (especially in public transportation) and improvements in human capital, particularly in the Arab and Haredi sectors. Implementing such policies demands sustained governmental attention, which was lacking even before the war and is all the more lacking now.

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## GDP and its components

The impact of the war on the growth of GDP and its components — private consumption, public consumption, investment, and exports net of imports — is clearly evident in Figure 1. The figure shows the change in each component in every quarter relative to its counterpart in the previous year (in seasonally adjusted, constant prices), beginning with the last quarter of 2023, when the war broke out.<sup>1</sup>

As the data for the last quarter of 2023 (compared to the last quarter of 2022) indicate, the war's impact on GDP was very large — an almost 5% decline — which meant that overall economic growth in 2023 amounted to only 2%.<sup>2</sup> The decline stemmed from a severe hit to investment, driven in large part by the paralysis of the construction sector (following the halt in employment of Palestinians from the West Bank and the reluctance of Arab Israelis to work in predominantly Jewish environments). Private consumption also fell significantly. Both developments are consistent with the decline in imports, although the export surplus increased slightly as exports fell at a more modest rate. Even the sharp rise in public expenditure, driven by the doubling of defense spending, did not offset the declines in private consumption and investment.

The first three quarters of 2024 are compared to the parallel quarters of 2023, before the outbreak of the war. All of them point to a moderation in the war's effect across all components. Private consumption even showed a small increase in the second and third quarters of 2024 relative to those quarters in the previous year, reflecting a very modest correction of the immediate war effect. In these quarters, GDP grew at a negative rate of about 1.5% compared to 2023.

Beginning in the fourth quarter of 2024, the comparison is made relative to an economy already in wartime conditions. Accordingly, this quarter shows a sharp increase in GDP of nearly 6%. The increase reflects a *rebound* effect in private consumption and investment, manifested also in a notable rise in imports, which offsets part of the GDP increase. Thus, the reduction in the export surplus tempered the impact of private consumption and investment on

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- 1 Technical issues arising from adjustments to price indices create certain discrepancies between the annual sum of the seasonally adjusted quarterly data and the annual totals published by the CBS.
  - 2 In July 2023, the Bank of Israel forecasted growth of 3% for 2023 and 2024. See the Bank of Israel website, [Research Department Staff Forecast, July 2023](#).

GDP growth. Notably, public consumption remained at the high level it reached at the outbreak of the war. Overall, Israel's economy grew by only 1% in 2024 — a figure that implies negative per capita GDP growth of about 0.3%.

The data for 2025 indicate a moderate pace of growth. In the first three quarters of the year, GDP grew by 2.8% compared to the same period a year earlier. The third quarter of 2025 was affected by the 12 days of the war with Iran, which heavily disrupted economic activity (see labor market data later in this chapter). Naturally, this conflict is also reflected in increased public consumption, but somewhat surprisingly, private consumption also displays significant growth. The result is a remarkable GDP growth of 3.3% relative to the third quarter of 2024. Despite the seemingly good performance of that quarter, the Bank of Israel has yet to release its forecast for 2025, but expects a strong rebound of 4.7% in 2026.<sup>3</sup> The Ministry of Finance has downgraded its growth forecast from 3.3% to 2.8%, while its forecast for 2026 of 5.2% is higher than that of the Bank of Israel.<sup>4</sup> The IMF also forecasts 2.5% growth for this year, but just 3.9% for next year.<sup>5</sup>

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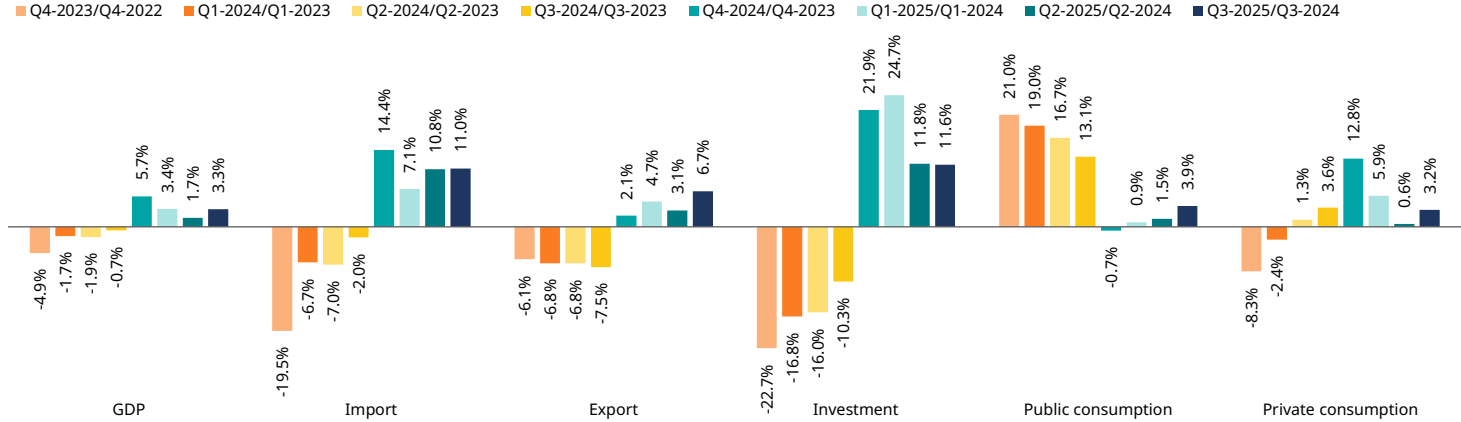
3 See the Bank of Israel website, [The Monetary Committee decides on November 24, 2025 to lower the interest rate to 4.25 percent](#).

4 See the document [Revised Macroeconomic Forecast](#) of the Chief Economist Division, Ministry of Finance from November 4, 2025.

5 See [IMF website](#).

# Figure 1. GDP growth and its components

Seasonally adjusted, constant prices



Source: Benjamin Bental and Labib Shami, Taub Center | Data: CBS

The implications of the growth data are illustrated in Figure 2. This figure tracks the actual developments in GDP per capita and private consumption per capita (in constant prices) and compares them to their hypothetical paths, based on 2019 baseline values extrapolated forward according to the average growth rate of GDP per capita and private consumption per capita between 1995 and 2019.<sup>6</sup> The figure shows a remarkable recovery of GDP per capita following the COVID-19 crisis, to the point of rising above the trend line. The growth data reported in Figure 1 are clearly reflected in Figure 2, in the sharp break in the level of GDP per capita caused by the war in the last quarter of 2023, when GDP per capita fell back to its level at the beginning of 2021. Since then, the recovery has been relatively slow, and by the third quarter of 2025 GDP per capita had returned to its end-2021 level — 3.5% below the trend.

The recovery of private consumption per capita was slower, but it returned to its trend line in 2022. The decline in this variable began in 2023, even before the outbreak of the war, and therefore the break that occurred in the last quarter of 2023 is somewhat less severe than that of GDP per capita.<sup>7</sup> Since then, the recovery in per capita consumption has been fairly moderate. By the end of 2025, this variable stands at a level 7% below its trend and is at the level of the second quarter of 2022.

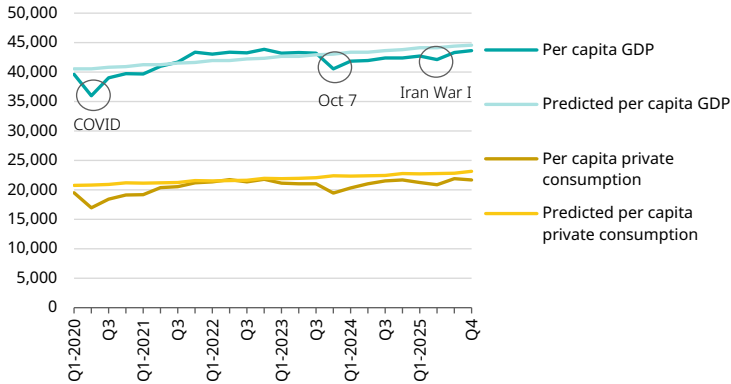
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6 Similar to other industrialized countries, despite deviations from the trend line caused by business cycles, growth rates remain stable over time. The choice to focus on per capita growth rates is particularly important in Israel because it neutralizes changes arising, for example, from waves of immigration or demographic shifts. See, for example, US data on GDP per capita and private consumption per capita on the Federal Reserve website, [Real gross domestic product per capita](#) and [Real personal consumption expenditures per capita](#).

7 The decline is explained by a series of developments in the first months of 2023. The Bank of Israel rapidly raised the interest rate (to a peak of 4.75%) in order to reduce inflation (which reached 5.4%). Inflation eroded real wages. In addition, there was a rapid depreciation of the shekel, associated with rising uncertainty following the struggle over changes to the judicial system.

**Figure 2. Per capita GDP and per capita private consumption: data and trends**

NIS, quarterly, 2020 prices



Source: Benjamin Bental and Labib Shami, Taub Center | Data: CBS

## The government and national debt

Figure 3 reflects the impact of the war on government expenditures. The figure plots actual expenditures (in current prices), but also net of the increase in the consumer price index. Civilian expenditures are also adjusted for population growth, on the assumption that they are directed primarily toward *final individual consumption expenditure* (such as education and health), in contrast to defense expenditures, which reflect *final collective consumption expenditure*.<sup>8</sup>

Defense expenditures naturally mirror the sequence of wartime events. Before the war, monthly spending stood at roughly NIS 6–NIS 7 billion (Figure 3).<sup>9</sup> Expenditures rose sharply with the outbreak of the war, reaching NIS 16 billion in December 2023. The 2023 state budget was increased by NIS 23 billion.

8 The terminology follows the CBS definitions, which in turn follow OECD definitions: government individual consumption and collective consumption, respectively.

9 Prior to the war, the defense budget was about NIS 80 billion, and the budget for the Ministry of National Security was NIS 22 billion.

After a period of more moderate military activity and a decline in defense spending during the summer months of 2024, expenditures rose again due to the war with Hezbollah, reaching NIS 21 billion in December 2024. The 2024 state budget was increased, in three stages, by about NIS 107 billion (nearly 21%) relative to the original budget.<sup>10</sup> The next peak, NIS 19 billion in April 2025, is associated with Operation Rising Lion (*Am Kelavi*) against Iran. The 2025 defense budget approved by the Knesset in March 2025 stood at NIS 136 billion (Knesset, 2024). Following the war with Iran, the defense budget was increased one more time by NIS 31 billion.<sup>11</sup>

Compared with defense expenditures, civilian expenditures — especially once adjusted for population growth — have remained relatively stable despite the heightened need to support affected populations (particularly evacuees from communities near Gaza and the northern border and victims of the Iranian missile attacks).<sup>12</sup> The policy implied by the data is consistent with the expenditure rule, under which the permissible increase in government spending is calculated according to the average population growth rate over the three years preceding the submission of the budget bill, plus an increment that declines as the debt-to-GDP ratio rises.<sup>13</sup>

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10 See the Ministry of Finance website, [Budget Implementation Reports for 2024](#).

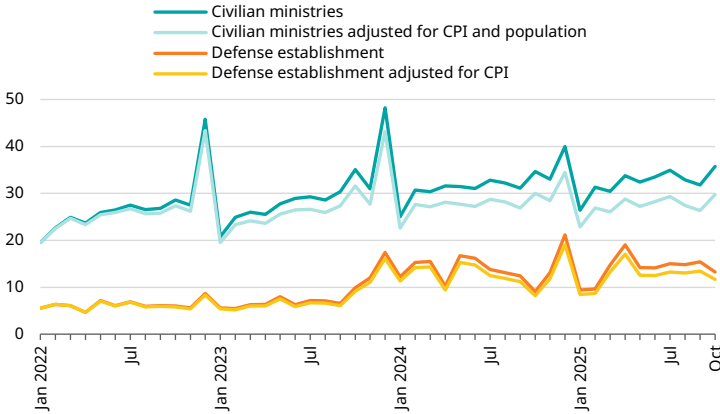
11 Operation Gideon's Chariots II to take over Gaza was not budgeted at all.

12 Beyond the increased needs created by the war, the rise in December 2023 also reflects a seasonal pattern, likely stemming from government ministries' desire to utilize unspent budget allocations before the end of the fiscal year.

13 The precise formula is  $g = n + \left(\frac{0.5}{b}\right)$  where  $g$  is the rate of growth in government

expenditures (percent),  $n$  is the average growth of the population over the previous three years (percent), and  $b$  is the debt to GDP ratio. For more on this see the [Knesset website](#).

**Figure 3. Government expenditures**  
NIS billions



Source: Benjamin Bental and Labib Shami, Taub Center | Data: Ministry of Finance, Accountant General Department

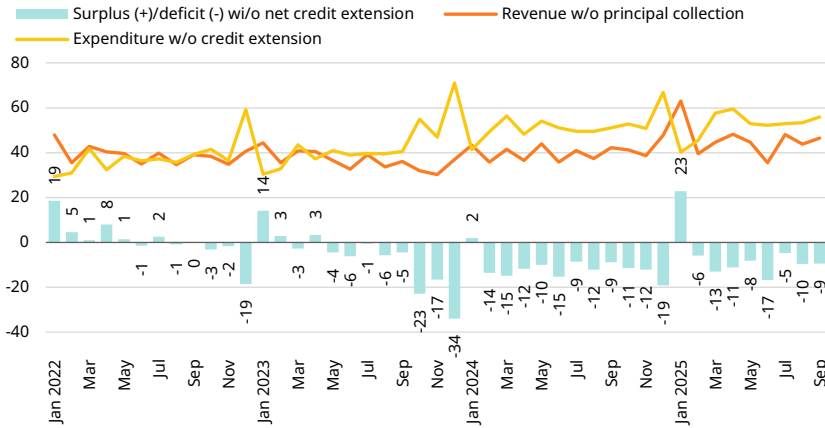
Figure 4 shows the fiscal position of the Israeli government. The year 2022 ended with a budget surplus of about 0.6% of GDP, despite the sharp increase in government spending in December. The first three quarters of 2023 ended with a negligible deficit of 0.3% of GDP. With the outbreak of the war, not only did government expenditures soar — tax revenues also fell. The result was an annual deficit of 4.1% of GDP. In the war year of 2024, the deficit rose to 6.8% of GDP. Thanks to the large budget surplus recorded in January 2025, the government accumulated a deficit of 3.7% of GDP in the first three quarters of the year.<sup>14</sup> The initial surplus stemmed from a series of tax measures, including the taxation of trapped profits introduced in the 2025 tax year. The Bank of Israel forecasts a deficit of 5.1% for 2025 and 4.3% for 2026.<sup>15</sup>

14 The International Monetary Fund relies on accounting principles that differ from those used by the Ministry of Finance. For example, the Ministry's calculations do not include the expenditures of the Property Tax and Compensation Fund, whereas the IMF apparently counts them as government expenditure. Accordingly, the IMF estimates the deficit in 2024 at 8.3% of GDP. Its forecasts for 2025 and 2026 are 6.4% and 5.5%, respectively.

15 See the Bank of Israel [Research Department Staff Forecast, September 2025](#), which was published prior to the ceasefire agreement on the Gaza front.

**Figure 4. Expenditures, revenues, and debt**

NIS billions

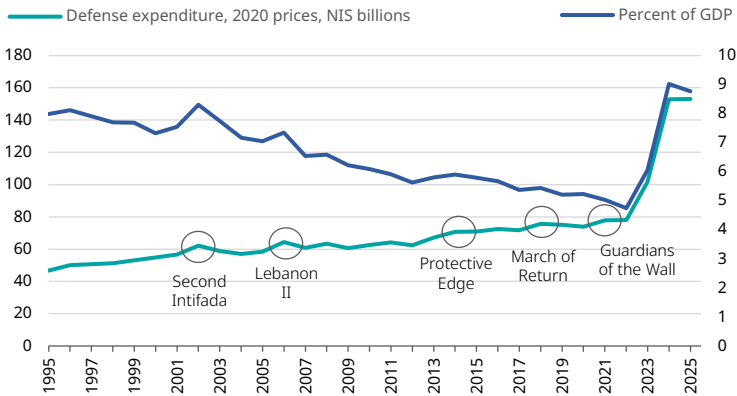


Source: Benjamin Bental and Labib Shami, Taub Center | Data: Ministry of Finance, Accountant General Department

Figure 5 focuses on defense expenditures, both in their level (in 2020 prices) and as a share of GDP. After reaching 8% of GDP in 2002 due to the Second Intifada, the share of defense expenditures declined steadily to about 5% of GDP on the eve of the war in Gaza. However, the level of expenditure (in real terms) rose throughout the entire period, at an average annual rate of 1.7% (compared with GDP, which grew at an average rate of about 3.7%). In 2007, the Brodet Committee was appointed; it recommended one-time increases to the military budget, followed by annual increases of only 1.3%. The Locker Committee report from June 2015 recommended that “in the years 2016–2020, the base budget should stand at NIS 59 billion, ‘all inclusive,’ and be indexed to the consumer price index” (Locker Committee, 2015). In other words, in real terms the military budget was supposed to remain constant — a recommendation that was not implemented. Due to the war, defense expenditures soared to about 9% of GDP and even higher. To assess Israel’s needs over the foreseeable future, the Nagel Committee was appointed. Its recommendations, published at the end of December 2024, propose adding approximately NIS 15 billion (in 2024 prices) to the military budget each year starting in 2026 and for a further

decade (Nagel Committee, 2024, p. 54). Under a very conservative assumption of an average GDP growth rate of 2.5%, this addition declines from about 0.75% of GDP to about 0.6% by the end of the decade.

**Figure 5. Defense spending**



Source: Benjamin Bental and Labib Shami, Taub Center | Data: CBS

As noted, the dramatic increase in defense spending has generated deficits that immediately affect Israel's public debt. The ratio of a country's debt to its GDP is used by international bodies, such as credit rating agencies, when assessing country risk. In particular, the larger this ratio, the more resources must be allocated to debt service, placing pressure on the state budget and, in extreme cases, leading to default. Figure 6 reflects Israeli governments' awareness of this fact. Thanks to responsible fiscal policy (low deficits) and rapid GDP growth, the debt-to-GDP ratio declined steadily over time (left axis). The COVID-19 crisis temporarily pushed the ratio upward, but it returned to its pre-crisis level as soon as the pandemic ended. The war again raised the debt-to-GDP ratio to the level seen at the end of the COVID-19 crisis, but unlike the post-pandemic period, there is now a real risk of a further and persistent rise in the debt ratio.

This risk stems from two sources: large government deficits driven by high defense spending and slow GDP growth, alongside rising interest rates.<sup>16</sup> At this stage, the Bank of Israel expects the debt-to-GDP ratio to stabilize this year at 70% and next year at 71%, assuming regional stability is maintained.

Figure 6 also plots the debt burden, defined as the ratio of interest payments to GDP (right axis). Unsurprisingly, there is a close relationship between the debt-to-GDP ratio and the debt burden. The expected increase of about 1 percentage point in the debt burden due to the war amounts to roughly NIS 20 billion in 2025 terms.<sup>17</sup> Figure 6 also estimates the implied average interest rate, derived from the debt-to-GDP ratio and from the debt burden (also on the right axis).<sup>18</sup> As shown, the average interest rate declined steadily from the end of the first decade of the century until the eve of the war — that is, the debt burden fell faster than the debt-to-GDP ratio. This pattern intensified during the COVID-19 crisis (when the debt ratio rose but the debt burden did not change markedly), but the trend reversed with the outbreak of the war, a development reflected in the estimated implied interest rate.

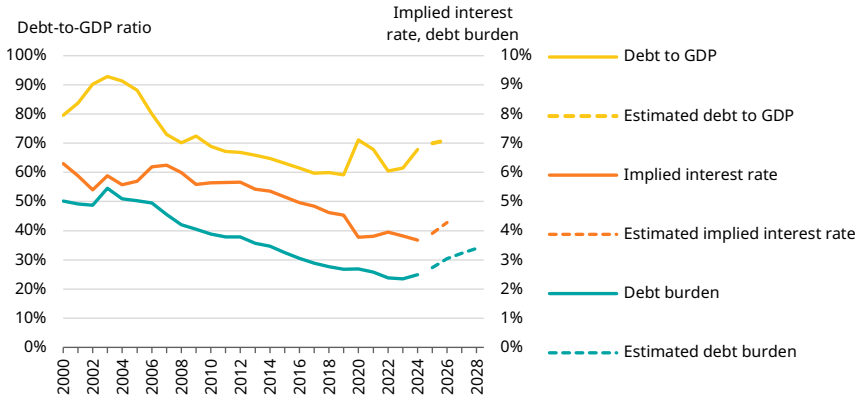
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16 With a substantial simplification, the dynamics of the debt-to-GDP ratio can be expressed as follows:  $b_t = d_t + (r - g)b_{t-1}$  where  $b_t$  stands for the debt to GDP ratio at time period  $t$ ,  $d_t$  stands for the primary deficit (excluding interest payments) in period  $t$ ,  $r$  is the interest (real) on the debt and  $g$  is the GDP growth rate (real). This implies that a high primary deficit, combined with an interest rate that exceeds the rate of GDP growth, drives the debt-to-GDP ratio upward.

17 The assessment of the debt burden for 2025–2028 is based on the Accountant General's estimate of interest payments (Knesset, 2024, p. 151), an annual inflation rate of 2.5%, and GDP growth of 2.5% per year.

18 The implied average interest rate is obtained by dividing the debt burden by the debt-to-GDP ratio. This result should be distinguished from the marginal interest rate relevant for new borrowing and for refinancing existing debt (Bental & Shami, 2024).

**Figure 6. Debt burden, ratio of debt to GDP and the implied interest rate**



Source: Benjamin Bentat and Labib Shami, Taub Center | Data: Bank of Israel; CBS; Ministry of Finance, Accountant General Department

## SPOTLIGHT

## The Digital Shekel

Technological innovation and consumer preferences are shaping the future of payment systems. Central banks around the world have begun examining the issuance of central bank digital currencies (CBDCs), which serve as a digital version of the national currency. Instead of printing cash, the central bank issues electronic money that complements physical cash and forms part of the state's sovereign money, with a fixed 1:1 conversion rate to the national currency — ensuring stability and security. A digital currency would not replace cash but would expand the range of secure payment options in the economy.<sup>19</sup> The motivations for issuing a CBDC vary across countries, but typically include the decline in cash usage,<sup>20</sup> promotion of competition in the payments market, cost reduction (especially for cross-border transfers), and enhanced financial inclusion. Additional motivations include programmable payment capabilities, improved transaction monitoring, and strengthening of the national payment infrastructure (Di Iorio et al., 2024). As of July 2025, 137 central

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19 See the Federal Reserve website, [Central Bank Digital Currency \(CBDC\)](#), and on the digwatch website, [Digital euro will not replace cash, says ECB](#).

20 Cash serves as an anchor for monetary stability and as the public's direct access to central bank money. A rapid decline in its use could harm marginalized populations, reduce privacy, and impair the ability to conduct basic transactions. A central bank digital currency could therefore provide a sovereign and accessible alternative in a digital age. For further discussion, see Bank of Israel, 2023, p. 12.

banks worldwide are studying CBDC issuance, and three countries have already launched one.<sup>21</sup> In Europe, the digital euro project is advancing, and China is conducting a large-scale pilot of a digital yuan. In the United States, by contrast, President Trump has prohibited the development of a retail CBDC.<sup>22</sup> Israel has not yet decided whether to issue a digital currency, but the Bank of Israel is preparing an action plan that would allow a future launch of a digital shekel (SHAKED).

A distinction must be made between CBDCs and private cryptocurrencies: a CBDC is issued and managed by the central bank, whereas cryptocurrencies such as Bitcoin are not backed by any sovereign authority. They operate in a decentralized manner and their value (in state currency terms) is highly volatile, making them unsuitable as the foundation for a stable financial system.

CBDCs come in two forms: wholesale currency, intended for financial institutions, and retail currency, intended for consumers and businesses. Retail CBDC can be based on a cash-like model (tokens), enabling relatively anonymous transactions through digital signatures, or on an account-based model, which requires user identification. The latter is better suited for monitoring illicit activity while maintaining some degree of privacy (BIS, 2021).

The Bank of Israel has been examining the possibility of a digital shekel since 2017 (Bank of Israel, 2018, 2022, 2023, 2024). In 2025, it published an initial design document for the digital shekel system, reviewing legal and macroeconomic considerations and addressing issues such as holding limits and interest (Bank of Israel, 2025). According to the document, the Bank of Israel would be the sole issuer and regulator of the digital shekel. The currency would support immediate and final payments of any amount,

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21 See the Atlantic Council website, [Central Bank Digital Currency Tracker](#).

22 Presidential Order 1418 from January 23, 2025.

and would be accessible to the entire public and to businesses, including those who struggle to adopt other payment methods. The system would use advanced technologies to prevent financial crime, money laundering, and terrorism financing, contributing to efforts against the shadow economy. The Bank of Israel's final recommendations are expected in 2026.

The user journey for the digital shekel would begin with opening an account and a digital wallet, a process that generates a unique system identifier and issues a user alias to facilitate transactions. This process would be conducted through a payment service provider, which would handle identity verification. Usage would not be limited to smartphones; it would also be possible through smart cards, basic mobile phones, point-of-sale terminals, and cloud-based interfaces, ensuring accessibility for those without advanced technology. Wallets could be funded via bank transfers or by depositing cash at ATMs or service counters. The digital shekel would function as a universal means of payment, similar to cash, but with the advantages of a digital system: basic uses for the public would be free of charge, and merchant fees would be significantly lower than for current digital payment methods. The system would also support offline payments, allowing continued operation in emergencies or areas with no network connectivity. Privacy is a central design element: protection levels would be higher than in existing digital payment systems but lower than with cash. Limited anonymous payments would be permitted, and the Bank of Israel would not have access to users' balances or transaction data.

In its basic form, every digital currency payment would be immediate and final. However, the digital shekel could also support more advanced uses developed by the private sector, such as conditional payments ("delivery versus payment"), micro- or split payments, and the management of sub-wallets. It would also allow interoperability with other payment systems, enabling

payments to parties without a digital-shekel wallet and thereby expanding usability and adoption. The Bank of Israel is examining the possibility of paying interest on digital-shekel balances to improve monetary transmission and promote competition in the deposit market. Decisions regarding whether and how to apply interest would be made in light of economic conditions and associated risks.

Alongside its advantages, issuing a central bank digital currency also entails significant risks. The main concern is that shifting deposits from banks to a digital wallet could reduce banks' lending capacity, potentially destabilizing credit markets. There are also cyber and operational risks requiring advanced infrastructure, as well as a need for strict regulation in areas such as privacy, consumer protection, and anti-money-laundering compliance. In Israel, limits on balances and loading amounts are being considered to mitigate liquidity and credit risks. Simulations indicate that such limitations can be set without harming usability, though the Bank emphasizes the need to prepare for constraints that may affect privacy, reputation, and financial stability.

The introduction of a CBDC echoes Milton Friedman's proposal for monetary reform. Friedman argued for a fundamental distinction between institutions that handle payments and those engaged in credit intermediation. In his view, demand deposits should be subject to a 100% reserve requirement, so that every dollar deposited would be fully backed by base money and not used to create new credit. This measure was intended to ensure systemic stability and clearly separate money creation from capital allocation. Meanwhile, other financial institutions — such as investment banks, funds, and credit companies — would operate solely as financial intermediaries, providing loans and investments (Friedman, 1960). The question arises whether, in today's economic environment, we are moving — knowingly or not — in this direction.

## The labor market

The processes reflected in Figure 1 are mirrored in developments in the labor market shown in Figure 7. The figure presents data on the share of the unemployed, those absent from work for economic reasons, and those who have stopped working. The first measure refers to workers who are not employed but are actively looking for work. The second refers to individuals who are formally attached to a workplace but are not actually working because their employer does not require their labor temporarily, or for their own reasons. Both of these rates are calculated out of the labor force — that is, respondents to the Labor Force Survey who report being employed or actively seeking employment (among those aged 15 and older, the employment rate is about 60%). The share of those who have stopped working reflects individuals who have not worked for two years and is calculated out of the entire population aged 15 and older.

Figure 7, which tracks the monthly data since early 2022, is characterized by striking stability in the unemployment rate, which fluctuates at around 3%. The share of those temporarily absent from work also hovers around 0.5% or less, with noticeable spikes during periods of exceptional security events. In the fall of 2024, this share rose somewhat due to the war in the north. Operation Rising Lion, which took place in June 2025, pushed this rate to the level recorded in October 2023, when the war first broke out; but with the event ending quickly, the share of those temporarily absent soon returned to its pre-operation level. As for the share of those who are discouraged workers, although it is not high, it does fluctuate. Since this category reflects people who stopped working at least two years before the survey, it is difficult to link the fluctuations to current events. Accordingly, the relatively high rates at the beginning of 2022 (about 1% — some 70,000 men and women) refer to those who stopped working at the onset of the COVID-19 crisis and did not return to the labor market. The increase recorded at the end of 2023 can likewise be attributed to another wave of COVID two years earlier. Still, the slow decline of this wave calls for explanation.

Employees are absent from work not only for “economic reasons.” Figure 8 presents the full range of circumstances under which employees are absent from work in addition to economic reasons: illness or vacation, reserve duty, or other reasons. The figure shows the number of employees in each category

(in thousands).<sup>23</sup> Needless to say, the labor productivity of absent employees is generally negligible, which affects national output. Periods in which absence rates are exceptionally high will therefore lead to a decline in GDP. This is what happened in the last quarter of 2023, when not only was the number of men and women serving in reserve duty very high, but so, too, was the number of employees (especially women) absent for other reasons. These were primarily spouses who had to function as single parents when the education system was shut down due to attacks on central Israel. The category of absence for “other reasons” essentially disappeared until Operation Rising Lion in June 2025, when it reappears, though at a much lower level. As we already saw in Figure 7, absence for economic reasons was high during the first months of the war and again in June 2025. The volatility in reserve call-ups reflects the intensity of military activity.<sup>24</sup> In addition to the massive mobilization at the start of the war, large-scale call-ups took place in September and October 2024 due to the fighting in the north, in April 2025 as fighting in Gaza intensified, and in June 2025 during Operation Rising Lion. Finally, absence due to vacation is seasonal and parallels the Jewish holidays.

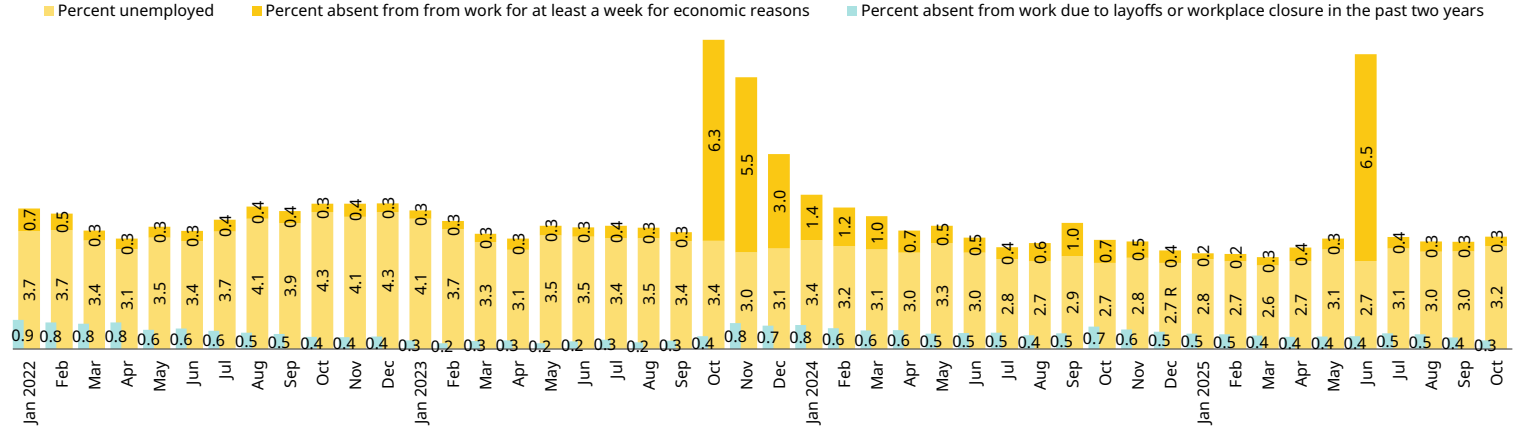
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23 To convert these figures into rates out of the labor force, note that Israel's labor force numbers approximately 4.5 million workers.

24 It should be noted that the Labor Force Surveys report absences only among employed respondents. Accordingly, the number of reservists does not include those who are not employed, such as students who are not in the labor force.

**Figure 7. Rates of inactivity in the labor market**

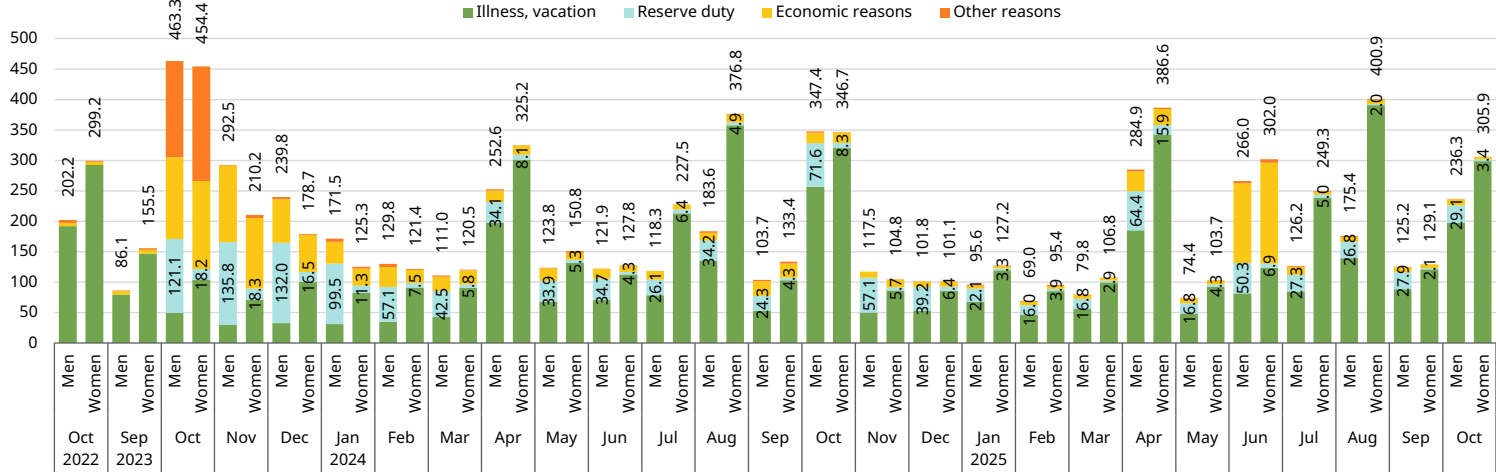
Percent



Source: Benjamin Bentall and Labib Shami, Taub Center | Data: CBS

**Figure 8. Temporary absences from work**

Thousands



Source: Benjamin Bental and Labib Shami, Taub Center | Data: CBS

## Labor productivity

The discussion above examined the Israeli economy in comparison with itself. We now turn to assessing Israel's economy relative to other countries in terms of labor productivity, typically measured as output per worker or output per hour worked. The comparison is to a group of five small European economies (reference countries) that are similar to Israel in population size and the extent to which their economies rely on human capital: Austria, Denmark, Finland, the Netherlands, and Sweden.<sup>25</sup>

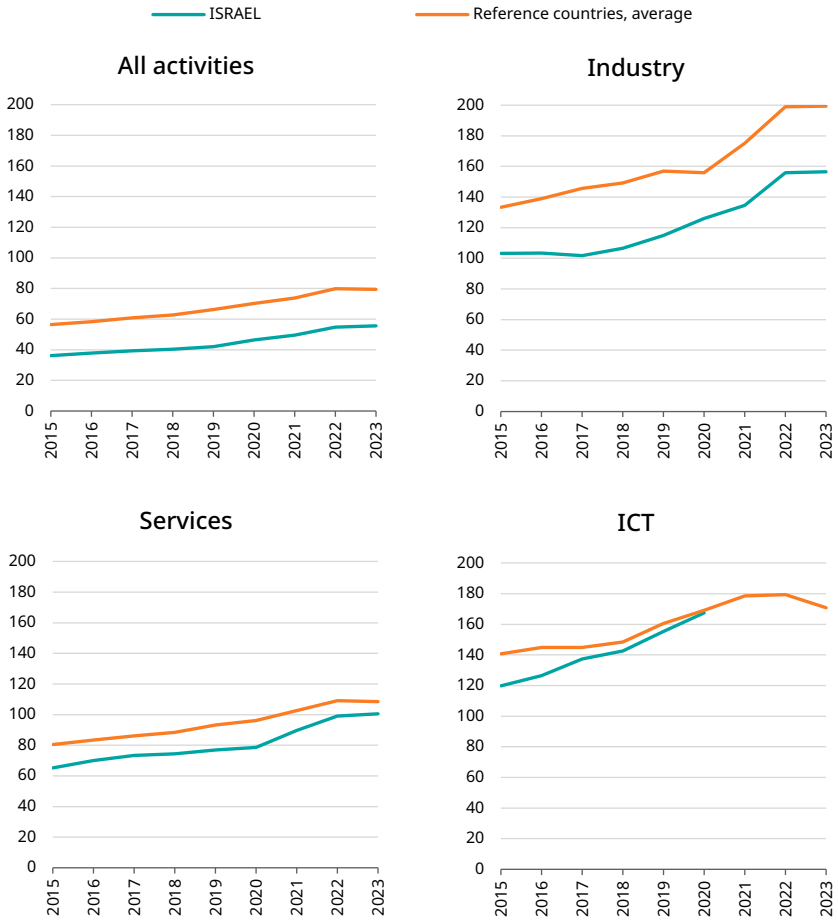
Figure 9 presents value added per worker in the whole economy (in PPP-adjusted dollars — purchasing power parity; likewise in the following figures), in industry (excluding construction), in services, and in ICT industries.<sup>26</sup> The figure shows substantial but narrowing gaps between Israel and the average of the reference countries between 2015 and 2023. The gap in value added per worker across all industries, which stood at 20% in 2015, narrowed to 12% in 2023. In industry, the gap remained stable at about 12%. In services, the gap shrank from 19% to 7%. For ICT, data for Israel are missing after 2020, but in that year the gap — which had been 15% — closed completely. The figure also highlights the large productivity differences between industry and ICT on the one hand, and services on the other, a pattern common to both Israel and the reference countries.

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25 In similar comparisons, the Bank of Israel also includes Belgium in this group, but it is omitted here because its economic structure is different — the financial sector there is unusually large.

26 ICT industries are defined by the OECD as industries 26 (manufacture of computers, electronic equipment, and optical instruments), 61 (telecommunications), 62 (computer programming, consultancy, and related services), and 63 (information services). It should be noted that this definition does not overlap with the definition of high-tech, as described below.

**Figure 9. Value added per worker in Israel and reference countries**  
 USD thousands, current PPP

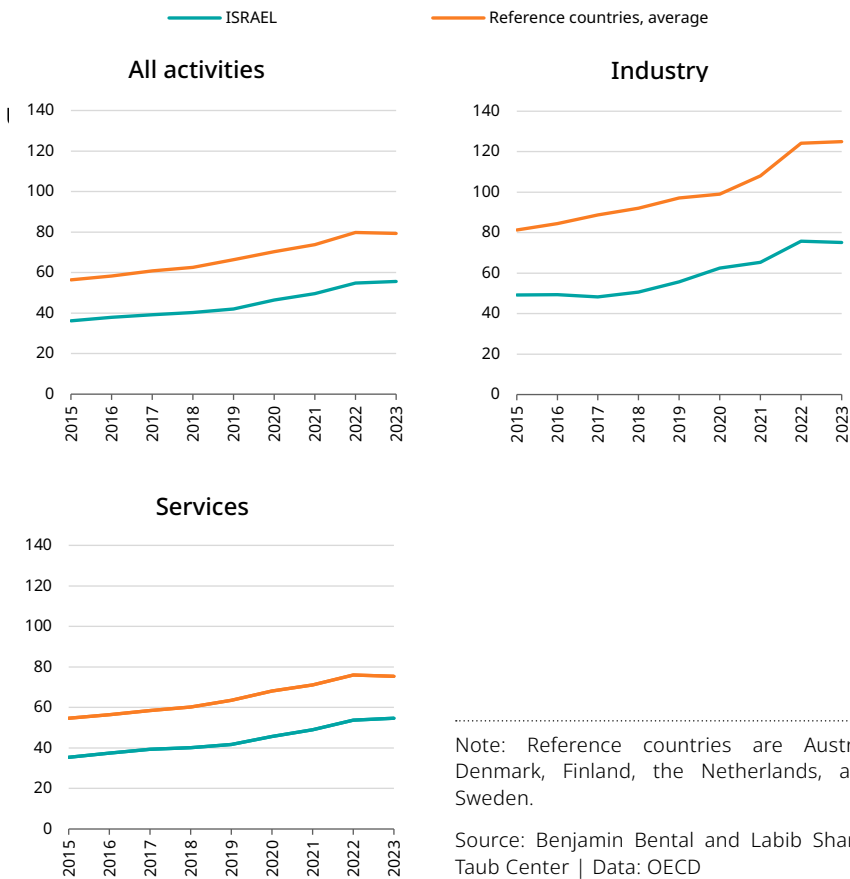


Note: Reference countries are Austria, Denmark, Finland, the Netherlands, and Sweden.

Source: Benjamin Bental and Labib Shami, Taub Center | Data: OECD

Figure 10 presents another measure of labor productivity — the value added per hour worked.<sup>27</sup> On this measure, the gaps are even larger. In the economy as a whole, the gap stood at 36% in 2015 and narrowed only to 30% in 2023. In the industrial sector, the gap remained at 4%, and in the services sector, the gap — which was also 36% — narrowed by 8 percentage points.

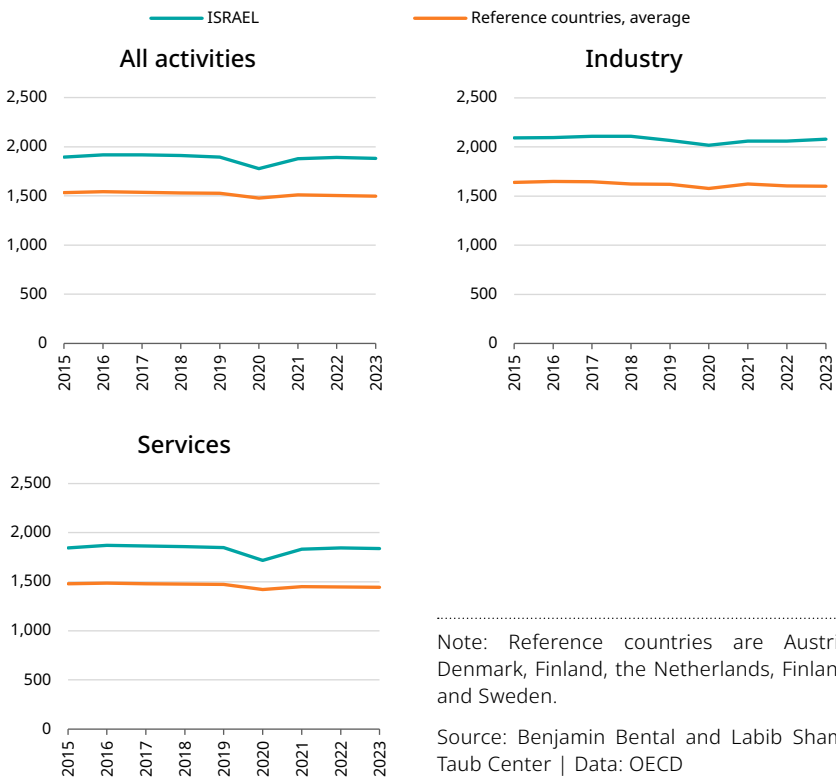
**Figure 10. Value added per work hour in Israel and reference countries**



27 The OECD does not report this data for the ICT sector.

The difference between productivity measures per worker and those per hour worked naturally reflects the average number of hours employees work across sectors. Figure 11 presents these differences and shows that, in Israel, employees in all sectors work more hours than their counterparts in the reference countries: the economy-wide gap is about 25% and has remained nearly constant over the years. In industry and services, the gap reached 30% and 27%, respectively, in 2023 — an increase of 3 percentage points compared to 2015. These gaps imply that had employees in Israel worked the same number of hours as their peers in the reference countries, the productivity gap per worker would have been roughly 30 percentage points larger.

**Figure 11. Yearly work hours for employed persons in Israel and reference countries**



There are several reasons why labor productivity in Israel is significantly lower than in the reference countries (Bank of Israel, 2019). One of them is the level of private capital relative to the number of employees, which in Israel is much lower than in the reference countries, as shown in Figure 12. Capital per employee in the economy as a whole and in the services sector is about half the level observed in the reference countries. In industry, this measure stands at roughly 75% of the reference countries' level. In the literature, it is common to assume an elasticity of one-third of output with respect to capital — in other words, a 10% increase in capital is associated with a roughly 3% increase in output. Accordingly, a 50% capital gap is consistent with an output gap of about 15%. Aligning Israel's capital per worker with that of the reference countries would close the gap in output per employee and about half of the gap in output per hour worked.

**Figure 12. Capital per employee in Israel and reference countries USD, current PPP**



Note: Reference countries are Austria, Denmark, Finland, and the Netherlands. Sweden is not included due to missing data. Data for Israel are also unavailable after 2018.

Source: Benjamin Bentall and Labib Shami, Taub Center | Data: OECD

## The high-tech sector

The high-tech sector<sup>28</sup> is highly atypical within the Israeli economy. It employs about 10% of the labor force (ages 15 and over) and accounts for roughly 60% of exports. According to the Israel Innovation Authority, the sector is responsible for about 20% of GDP and 40% of economic growth since 2018 (Israel Innovation Authority, 2024a). The sector's high labor productivity is also reflected in high wages, and consequently in high income tax and corporate tax payments. The Israel Innovation Authority estimated that in 2020, roughly one-quarter of state revenues came from taxing the high-tech sector, and more than one-third of income tax receipts came from its employees (Israel Innovation Authority, 2024b).

## Employment and wages in high-tech

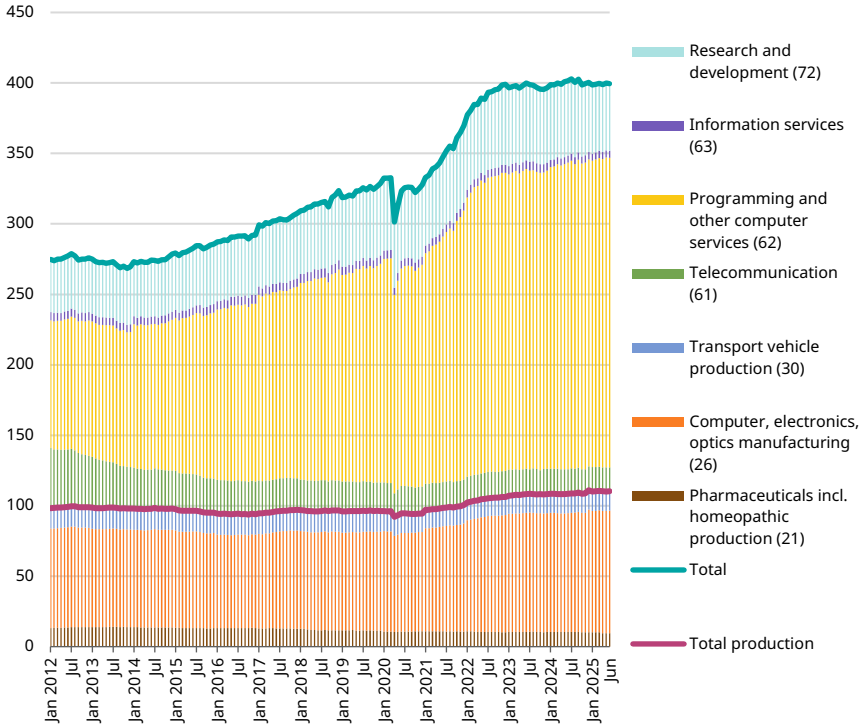
Figure 13 points to rapid employment growth in the high-tech industries beginning in the mid-2010s, driven mainly by the computer programming and consulting sector.<sup>29</sup> This growth accelerated after the economy emerged from the COVID-19 crisis, following the dramatic rise in high-tech investment, and came to a halt at the end of 2022 as investment levels returned to their pre-pandemic pace. In late 2023, even before the war broke out, there was a temporary decline of roughly 5,000 jobs (out of 400,000) in high-tech employment. More recently, a very small decrease of about 1,000 jobs has emerged, stemming entirely from reduced employment in the pharmaceutical industry.

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28 According to the CBS definition, high-tech industries include sector 21 (manufacture of pharmaceuticals, including homeopathic medicines), sector 26 (manufacture of computers, electronic equipment, and optical instruments), and sector 303 (manufacture of aircraft, spacecraft, and related equipment). High-tech services include sector 61 (telecommunications), sector 62 (computer programming, consultancy, and related services), sector 631 (data processing, hosting, and related services; internet portals), sector 720 (research and development centers), and sector 721 (research and development in engineering and the natural sciences). There is some disagreement regarding whether sector 61 should be included in this list. For details, see CBS, Definitions, Classifications and Explanations.

29 These data are based on the National Insurance Institute, which defines the high-tech industries as follows: Industry — 21 (pharmaceutical manufacturing), 26 (computer manufacturing), 30 (transport equipment manufacturing). Services — 61 (communications), 62 (programming), 63 (information), 72 (research and development).

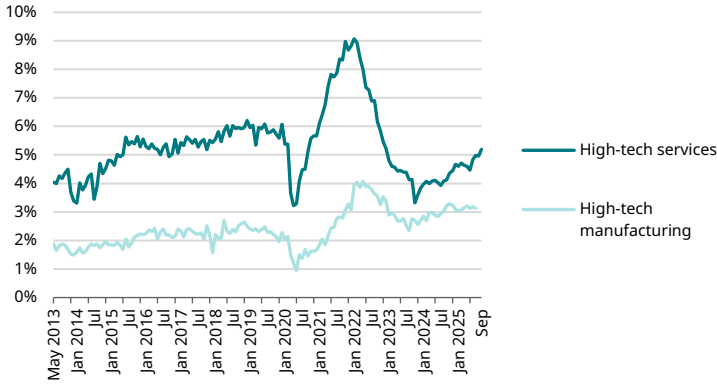
**Figure 13. Employment in the high-tech sector**  
Thousands



Source: Benjamin Bental and Labib Shami, Taub Center | Data: CBS

Another indication of employment conditions in the high-tech sector can be seen in the job vacancy rate, shown in Figure 14. The sharp rise in vacancy rates — especially in high-tech services — occurred in parallel with the increase in employment that followed the end of the COVID-19 crisis. In October 2023, there was a temporary decline in the vacancy rate in high-tech services, but since then it has risen steadily. The simultaneous stagnation in the number of employed persons suggests that labor shortages are concentrated in specific fields.

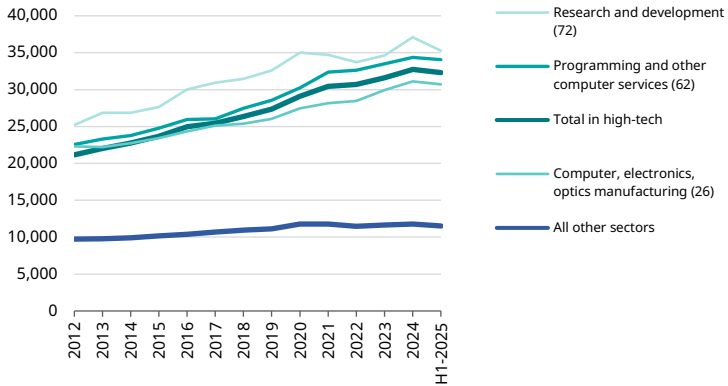
**Figure 14. Share of unfilled positions in high-tech**



Source: Benjamin Bental and Labib Shami, Taub Center | Data: CBS

Figure 15 presents real wages (in 2024 prices) in the main high-tech industries and in the rest of the economy. The figure points to the emergence of a gap between the wages of workers in high-tech manufacturing, represented by the computer and optical equipment manufacturing industry, and those of workers in high-tech services, represented by programmers. The average wage of the latter group is even approaching that of research and development workers. Although the growth in real wages across the economy has slowed and there has been a slight decline in the wages of R&D workers, the wage gap between high-tech workers and all other workers continues to widen: this gap stood at 117% in 2012 and reached 180% in 2025. This reflects the large differences in labor productivity.

**Figure 15. Real wage in high-tech and the other economic sectors**  
NIS per month, 2025 prices

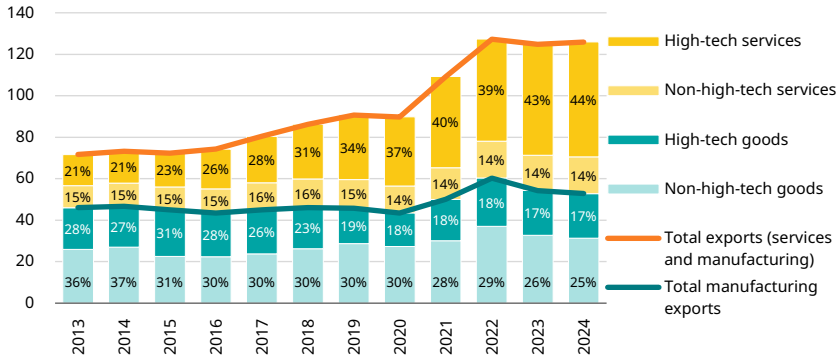


Source: Benjamin Bental and Labib Shami, Taub Center | Data: CBS

## High-tech's contribution to exports

Figure 16 points to the evolution of the high-tech sector's contribution to Israeli exports. In particular, the figure shows the dramatic change in the export of high-tech services. In absolute terms (in dollars), overall industrial exports and exports of the high-tech manufacturing industry have remained approximately constant. The level of exports of services in non-high-tech industries has also remained fairly stable. The component that surged is high-tech services exports: from USD 15 billion in 2013 to USD 55 billion in 2024 — and, as a share of total exports, from 21% to 44%. This represents a very large contribution to Israel's current account and to the country's standing in global markets.

**Figure 16. Exports by technological intensity**  
USD billions



Source: Benjamin Bental and Labib Shami, Taub Center | Data: CBS

## Investment in high-tech

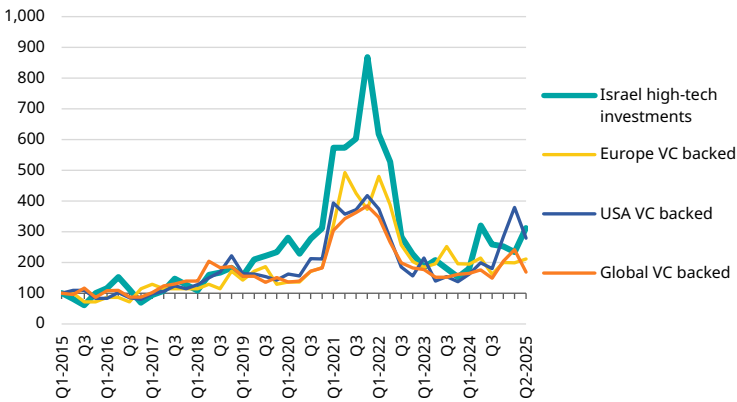
Figure 17 describes the development of high-tech investment in Israel, the United States, Europe, and worldwide, relative to the first quarter of 2015. The sharp increase in investment during the COVID-19 period stands out prominently across the globe, driven mainly by the near-zero interest rates that prevailed at the time. In Israel, the surge was twice as steep as elsewhere: quarterly investment jumped from roughly USD 2 billion to USD 5 billion — and even USD 8 billion in the fourth quarter of 2021. These investments fueled the sharp rise in labor demand seen in Figures 13 and 14, as well as the increase in wages shown in Figure 15. As global interest rates rose, high-tech investment fell quickly and returned to its pre-COVID level. Nevertheless, 2024 and the first two quarters of 2025 indicate continued global investor interest in the Israeli high-tech sector, despite the war.

Israel's status as a high-tech powerhouse is evident in its share of global high-tech investment, which far exceeds its relative economic size. Israeli high-tech investment amounts to about 5% of US high-tech investment, even though Israel's GDP is only around 2% of US GDP. Israel's share of high-tech investment in Europe is roughly 20%, whereas its GDP is about 3.5% of that of EU member

states.<sup>30</sup> Relative to the world as a whole, Israel accounts for about 2% of global high-tech investment while its GDP represents roughly 0.3% of global GDP.

**Figure 17. High-tech investment index for Israel, the US, Europe, and worldwide**

Q1-2015 = 100



Source: Benjamin Bental and Labib Shami, Taub Center | Data: Dealroom; Ernst and Young; IVC, 2025

## Investment in artificial intelligence

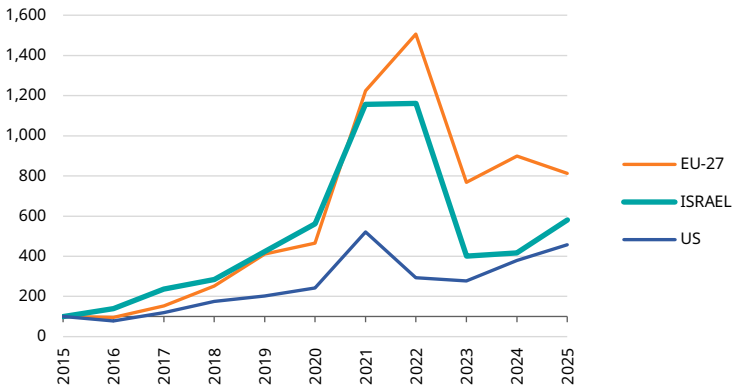
The role of artificial intelligence within the high-tech industry is steadily growing. Figure 18 shows the rise in AI investment in Israel, the United States, and the European Union. The sharp increase in such investment during the COVID-19 period — especially in Israel and Europe — has since moderated, but its growth rate remains higher than the growth in overall high-tech investment shown in Figure 17.

The rapid expansion of AI investment has led to a situation in which, as of 2025, AI accounts for roughly 30% of all high-tech investment in Israel. This share is higher than that of AI investment within EU member states but about half the

30 The high-tech investment data refer to all European countries. The GDP data refer only to EU member states.

share found in the US. In dollar terms, AI investment in Israel amounts to about one-quarter of the corresponding investment in Europe and roughly 2% of AI investment in the US.

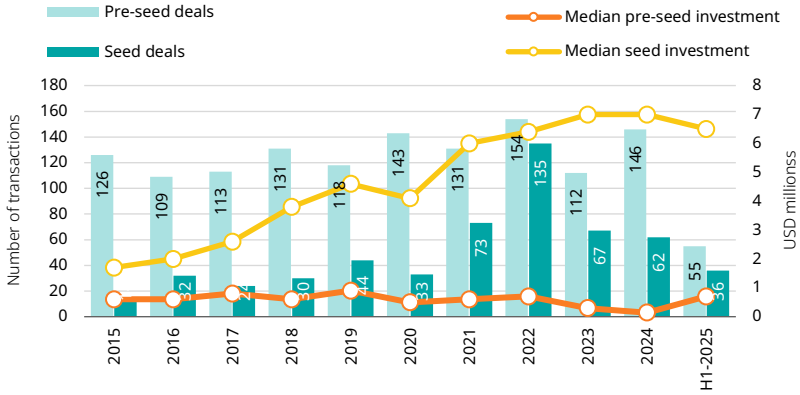
**Figure 18. AI investment index for Israel, the US, and Europe**  
2015 = 100



Source: Benjamin Bental and Labib Shami, Taub Center | Data: OECD

Most high-tech investment is directed toward established companies with proven products. However, early-stage investment in companies just starting out signals long-term investor confidence in the Israeli high-tech sector. Figure 19 presents investments in companies at the idea stage — the pre-seed stage — and at the seed stage, when the idea is developed into a product with commercial value. The data show an upward trend in both the number of investments and the median investment amount at the seed stage until 2022. Since then, these indicators have stabilized. At the pre-seed stage, the picture is less clear. In 2024, the number of deals increased relative to the previous year, and it appears that 2025 will return to the levels observed in 2023. Pre-seed is a very early stage in the development of a concept or product, and at this stage it is difficult to discern changes in the data or to identify risks to the future development of mature companies in Israel.

**Figure 19. Transactions and investment in pre-seed and seed stages**



Source: Benjamin Bental and Labib Shami, Taub Center | Data: IVC

## Price levels

Prices in Israel are high — every Israeli who travels abroad feels this. This impression blends two distinct issues: relative prices and exchange rates. When discussing relative prices, the question is typically internal to the country. For example, a restaurant meal is expensive compared to preparing a similar meal at home. By contrast, in international comparisons the exchange rate comes into play. When the domestic currency is strong, one unit of it buys a large amount of foreign currency. As a result, the price paid abroad for a given product — for example, a McDonald’s hamburger — appears low. The opposite occurs when the domestic currency is weak: the conversion yields a relatively small amount of foreign currency, and the (identical) product abroad appears expensive. Since average household consumption baskets differ markedly across countries, international comparisons are difficult. Even so, international bodies such as the OECD compare the prices of product groups within overall household consumption across countries, taking into account local prices and the relevant exchange rate. On this basis, they compute the exchange rate that would prevail if prices were equalized. This rate is called the purchasing power parity (PPP) exchange rate and serves as the basis for comparing the cost of living. The extent to which the hypothetical PPP exchange rate is above

or below the market exchange rate reflects how expensive or inexpensive that component of the consumption basket (and the basket as a whole) is in a given country relative to the comparison country.<sup>31</sup>

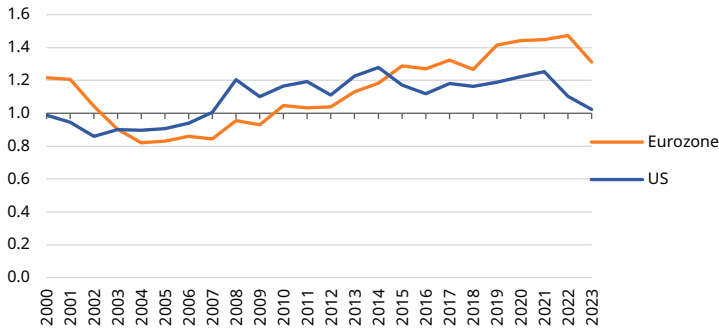
Figure 20 presents the gap between the market exchange rate and the PPP exchange rate for the basket of goods that households actually purchase (HFCE — household final consumption expenditure). The figure shows that Israel has not always been an expensive country. For most of the first decade of the century, living costs in Israel were low relative to both the United States and Europe (index below 1). These were the years in which the shekel was weak. Since then, the price level in Israel rose steadily exceeding that in the Eurozone countries by over 40%. Israel is also expensive relative to the US, by roughly 20%. These gaps reflect changes in the euro-dollar exchange rate.<sup>32</sup> Only in recent years has there been some reversal — by 2023 (the most recent year for which data are available), Israel was about 30% more expensive than Eurozone countries, but relative to the United States the gap essentially closed. The figure illustrates how strongly the choice of comparison base (the United States or the Eurozone average) affects the result.

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31 The Economist bases its comparison on the price of a Big Mac sandwich in different countries to determine whether, at the market exchange rate, the sandwich is expensive or cheap relative to the United States. The magazine also calculates the exchange rate that would equalize prices. According to this calculation, in July 2025 the market exchange rate of the shekel exactly equalized hamburger prices in Israel and the United States. See [The Economist, Big Mac Index](#).

32 For example, between February 2018 and April 2020 the euro lost about 12% of its value relative to the dollar, and between January 2021 and October 2022 the euro lost 20% of its value relative to the dollar.

**Figure 20. The ratio between the price level in Israel and the price level in the US and the Eurozone**



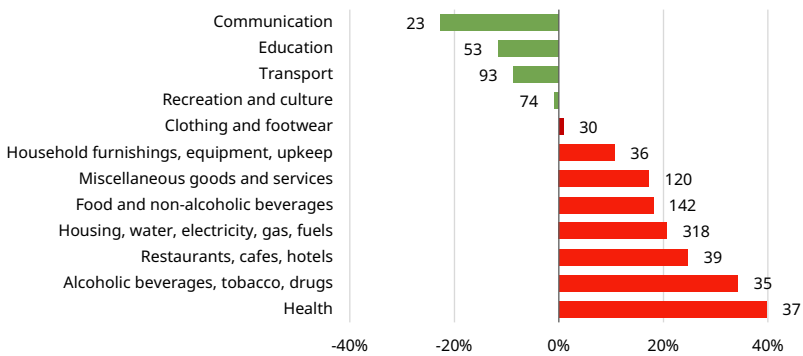
Source: Benjamin Bental and Labib Shami, Taub Center | Data: OECD

Figure 21 presents the cost of living in Israel compared with the five reference countries — Austria, Denmark, Finland, the Netherlands, and Sweden — in 2023. The figure is based on OECD calculations that rely on the prices of goods and services that are as comparable as possible across countries. The items are grouped into the main components of household consumption in order to enable cross-country comparisons of their prices. The figure describes the price gaps for these components between Israel and the average in the comparison countries (that is, the gaps between the purchasing power parity [PPP] exchange rate for each product group and the market exchange rate). The figure also shows the expenditure weight of each product group within the Israeli consumption basket (out of 1,000), as of 2023.<sup>33</sup> As such, the figure also makes it possible to examine relative prices within Israel. For example, the largest expenditure item for Israeli households is housing, with a weight of close to one-third. According to the market exchange rates prevailing in 2023, in this category Israel was about 20% more expensive than the average in the reference countries. A perhaps somewhat surprising finding is the category in which the cost of living is highest — healthcare, where Israel is

33 Due to the OECD's harmonization of product groups for the purpose of calculating purchasing power parities, their relative weights in the consumption basket differ slightly from those used by Israel's CBS for calculating the consumer price index.

40% more expensive than the comparison countries. The gap appears to stem from low competition in health-related products (for example, toothpaste), as well as from the relatively high wages of healthcare system workers.<sup>34</sup> Prices of clothing and footwear, recreation, and culture in Israel are similar to those in the reference countries, although these categories have a small weight in total consumption. Israeli households benefited from communication services that were about 20% cheaper than in the reference countries. Overall, the prices of the household consumption basket in Israel were about 13% higher than the average in the reference countries.<sup>35</sup>

**Figure 21. Cost of living for main expenditure categories, Israel compared to reference countries, 2023**



Notes: The numbers at the end of the bars represent the relative weight of the category in the Israeli consumer basket (out of 1,000). Reference countries are Austria, Denmark, Finland, the Netherlands, and Sweden.

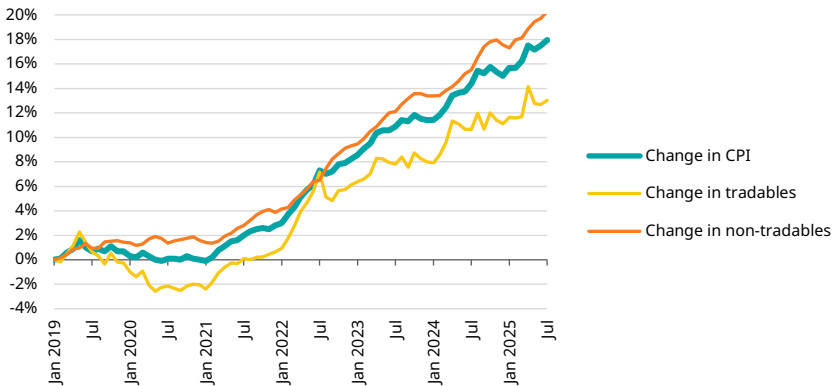
Source: Benjamin Bental and Labib Shami, Taub Center | Data: OECD

34 The OECD's comparison of health-related prices includes the cost of hospital services. See OECD, 2024, pp. 267-268.

35 According to data from July 2025, Israel is about 16% more expensive than the average in the reference countries.

The fact that Israel is a high-cost country is, as noted, tied to the idea that the market exchange rate is effectively too low. By the same token, the ongoing appreciation of the shekel — which makes Israel more expensive relative to other countries — is precisely what lowers the price of imported goods and thereby helps moderate the rate of price increases.<sup>36</sup> This is reflected in Figure 22, which shows the evolution of the consumer price index broken down into the prices of tradable goods (about one-third of the basket) and non-tradables (two-thirds of the basket). Since early 2019, the moderating effect of tradables is clearly evident. While non-tradable prices have risen by about 20% over this period, tradable prices have risen by only about 13%, helping keep overall CPI growth to just 18%.

**Figure 22. Change in the consumer price index relative to January 2019: Tradable and non-tradable goods**



Source: Benjamin Bental and Labib Shami, Taub Center | Data: Bank of Israel

36 For more on this, see Gronau, 2023.

## SPOTLIGHT

## The Cost of Living in Israel: A Comparative Analysis

Economic theory predicts that, in purchasing-power-parity terms, wealthier countries will also be more expensive (the Balassa–Samuelson effect).<sup>37</sup> In brief, this follows from the fact that labor productivity in richer countries — particularly in the tradable-goods sector — is higher than in poorer countries. Accordingly, wages in the tradables sector are higher, which in turn implies that wages in the non-tradables sector must also be higher.<sup>38</sup> Because labor productivity in the non-tradables sector tends to be lower, the relative prices of non-tradable goods rise.<sup>39</sup> The ultimate result is a higher overall price level in wealthier countries than in poorer ones, beyond what PPP alone would predict.

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37 The effect is named after Béla Balassa and Paul Samuelson, two scholars who published their articles on the topic in the same year (Balassa, 1964; Samuelson, 1964).

38 The phenomenon is also related to what is known as the Baumol effect, according to which wages in certain sectors (especially services) rise independently of productivity growth. Baumol and Bowen illustrated this with the performing arts: “The output per man-hour of a violinist playing a Schubert quartet in a standard concert hall is relatively fixed, and it is rather hard to reduce the number of actors needed to produce Henry IV, Part II” (Baumol & Bowen, 1965, p. 499).

39 See Figure 3.2 in the special report of the Bank of Israel Research Department (2019), which shows a clear relationship between labor productivity across sectors in Israel (relative to OECD countries) and the export potential of those sectors.

Figure 23 presents regression results for Israel derived from a panel of all OECD countries (excluding Luxembourg and Ireland) for the years 2000–2024.<sup>40</sup> In all regressions, the dependent variable is a measure of Israel's relative cost of living (relative to the geometric mean of all OECD countries), defined as the ratio between the exchange rate that equalizes the price of the consumption basket and the (average) market exchange rate. The blue line in the figure traces the evolution of this variable since 2000. Prices in Israel were higher than those in OECD countries at the start of the century, but converged to them by the mid-2000s. Since then, a process of rising relative prices began, peaking at the start of the current decade and then gradually moderating.<sup>41</sup> In addition to the data themselves, the figure displays three analytical models aimed at identifying the factors driving Israel's relative cost of living.<sup>42</sup> The first (the red curve) isolates — following the spirit of the Balassa–Samuelson model — the effect of GDP per capita (linear and squared) in each country. This variable moves slowly and without volatility over time; it indeed produces an upward-sloping (and relatively moderate) curve, but one that fails to track the movements seen in the data. The second model (the green curve) adds a short-term explanatory variable representing the influence of tradable-goods prices on the price of the consumption basket (as in

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40 Luxembourg is a city-state whose economy relies almost entirely on the financial sector. Ireland's national accounts are highly problematic due to the massive presence of multinational corporations in the country, stemming from Ireland's unique status as an EU member alongside special bilateral arrangements with the United States.

41 Israel's data in Figure 21 differ slightly from those in Figure 19 because the cost-of-living index is normalized to the geometric mean of OECD countries in order to neutralize fluctuations in the euro–dollar exchange rate. Nevertheless, the overall trends remain unchanged.

42 For details on the regression, see the Appendix to this chapter.

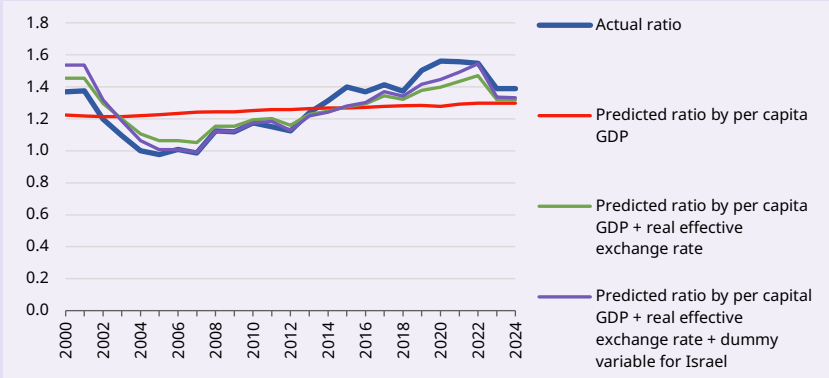
Figure 22).<sup>43</sup> This predicted curve follows the data fairly closely. This suggests that fluctuations in Israel's relative cost of living are driven to a very large extent by exchange-rate movements rather than by underlying structural factors. This conclusion is reinforced by the third model (the purple curve), which allows the regression to capture the particular influence of the real effective exchange rate on Israel's relative cost of living. The result indicates that Israel's cost of living is even more sensitive than that of other countries to fluctuations in the real exchange rate. In the full sample, the pass-through from the real effective exchange rate to the relative cost-of-living index is about 0.9 — that is, a 1% increase in the real effective exchange rate raises the relative cost of living by 0.9%. In Israel, the pass-through is even higher, with the effect being on the order of 1.2%.

Beyond these variables, the regressions include a country fixed effect that captures country-specific factors (such as productivity, competition policy, and taxation) not explicitly included in the model. For Israel, this fixed effect indicates a baseline price-level gap of roughly 29% relative to the OECD average — a fact reflected in the upward shift of the prediction based solely on GDP-per capita variables.

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43 More precisely, the regression includes the real effective exchange rate (REER), a country-level index that weights a country's nominal exchange rates relative to all of its trading partners — using trade volumes as weights — and adjusts for the ratio of domestic prices to prices in each partner country, relative to a base year.

**Figure 23. The ratio between the cost of living in Israel and the OECD average**



Source: Benjamin Bental and Labib Shami, Taub Center | Data: OECD

## Conclusion

Israel's economy has been at genuine risk. The high costs of the war have increased the government deficit, the debt-to-GDP ratio, and the burden of interest payments. The prolonged fighting has harmed productivity, investment, private consumption, and economic growth. The relaxed security situation and the possibility of regional political arrangements offer hope that the economy will return to a path of rapid growth. Achieving this will require growth-enhancing policies more than ever — especially investment in physical infrastructure and improvements in human capital. The concern is that high defense expenditures will crowd out not only civilian spending for citizens' welfare but also these essential investments, creating a vicious cycle: insufficient growth exacerbates resource constraints, undermines needed public investment, and further reduces the rate of GDP growth. Such a process could even jeopardize Israel's ability to finance its required defense spending. Policy makers must be acutely aware of these risks and the dilemmas they pose.

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## Appendix

The full econometric model is:

$$r_{c,t} = \alpha \cdot y_{c,t} + \beta \cdot (y_{c,t})^2 + \gamma \cdot REER_{c,t} + \delta \cdot Israel + \varepsilon_c + u_{c,t}$$

where  $r_{c,t}$  is the ratio between the relative cost of living in country  $c$  at time  $t$  and the geometric mean of the relative cost of living across all countries in the sample at time  $t$ ;  $y_{c,t}$  is the gap between GDP per capita in country  $c$  at time  $t$  and the median of this variable across the sample countries in the sample at time  $t$ ; and  $REER_{c,t}$  is the gap between the log of the real effective exchange rate index in country  $c$  at time  $t$  and the mean of this variable across the countries.<sup>44</sup>  $\varepsilon_c$  is the country fixed effect for country  $c$ , and  $u_{c,t}$  is the random error term. The model was estimated in three versions: GDP-per capita variables only; these variables plus the real effective exchange rate; and an additional version allowing Israel to have a separate coefficient on the exchange-rate variable. In addition, a version was estimated in which the dependent variable and the GDP-per capita variables were log-transformed, and another version in which they were entered in levels. In the first case, the coefficients represent elasticities; in the other cases, the GDP-per capita coefficients represent marginal effects, and the coefficient on the exchange-rate variable represents semi-elasticities.

Appendix Table 1 below summarizes the estimation results. Appendix Tables 1A and 1B show that the coefficients on the GDP-per capita variables are not statistically significant. Nonetheless, the model fits the data well, as indicated by the very high  $R^2$ . This implies that cross-country variation is *explained* by the country fixed effects. However, the GDP-per capita variables do not account for within-country variation: relative to the modest changes in GDP per capita, the volatility of the PPP index is simply too large. This picture changes once the REER variables are added — their coefficients are highly significant. Figure 21 highlights these patterns for Israel.<sup>45</sup>

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44 The difference in centering the GDP variables and the relative real effective exchange-rate index reflects the nature of the variables. The former is an absolute variable, and centering it around the median prevents disproportionate influence of extreme values; the latter, as noted, is measured as a ratio. Centering the logarithms around the mean of the logs is equivalent to normalizing by the world geometric mean, analogous to the normalization of the dependent variable.

45 An alternative specification based on Mundlak (1978) makes it possible to identify the effect of GDP per capita on the relative cost of living (though not other latent country-specific factors). This model, not reported here, indicates an elasticity of 0.18 of the relative cost of living with respect to GDP per capita.

### Appendix Table 1A. Regression results: Logarithmic specifications

Variable	GDP, exchange rate, and Israel effect	GDP and exchange rate	GDP alone
Per capita GDP	0.031930	0.013320	0.012663
p-value	0.153356	0.258116	0.274578
Per capita GDP squared	-0.010460	-0.006250	-0.006350
p-value	0.278320	0.090694	0.088639
<i>REER</i>		0.905989	0.893205
p-value		0	0
Israel (dummy variable)			0.325160
p-value			0
R <sup>2</sup> overall	0.895818	0.966641	0.966995
R <sup>2</sup> within	0.047914	0.047914	0.695494

### Appendix Table 1B. Regression results: Linear specifications

Variable	GDP, exchange rate, and Israel effect	GDP and exchange rate	GDP alone
Per capita GDP	0.023969	0.001095	-0.000150
p-value	0.300862	0.940058	0.991686
Per capita GDP squared	-0.008930	-0.002640	-0.002830
p-value	0.306566	0.516260	0.495729
<i>REER</i>		0.953459	0.929287
p-value		0	0
Israel (dummy variable)			0.096409
p-value			0
R <sup>2</sup> overall	0.886896	0.957243	0.958475
R <sup>2</sup> within	0.028491	0.655562	0.645347

Note: The regressions were run with the assistance of Chat GPT5.

Source: Benjamin Bental and Labib Shami, Taub Center | Data: IMF

NTA 1



NTA 2



## *Executive Summary*

# How Is the Life Cycle Funded in Israel?

Alex Weinreb, Kyrill Shraberman, and Avi Weiss

This executive summary presents the main points of two articles that examine the National Transfer Accounts (NTA) framework. This innovative tool is used for the economic and fiscal assessment of demographic change, and makes it possible to calculate how much people at different ages earn, consume, and transfer to one another — across generations or age groups — both privately and publicly. In this way, it helps explain how the relationship between income and expenditure changes over the life cycle. In recent years, the method has been extended to distinguish these indicators along additional dimensions, such as gender or educational categories. In both of these studies, the authors, Prof. Alex Weinreb, Kyrill Shraberman, and Prof. Avi Weiss, focused on the differences between Israel and other OECD countries as well as the differences between the three main subpopulations in Israel: Haredim, non-Haredi Jews, and Arabs. According to the authors, the NTA can assist policy makers in Israel in shaping social and economic public policy on the basis of the expected demographic changes in each of the country's population groups.

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\* Prof. Alex Weinreb, Research Director and Chair, Demography Area, Taub Center for Social Policy Studies in Israel. Kyrill Shraberman, Researcher, Taub Center; doctoral student, Department of Economics, Bar-Ilan University. Prof. Avi Weiss, President, Taub Center; Department of Economics, Bar-Ilan University. These studies were first published in November 2025 and they are available on the Taub Center website: (1) [Israel's National Transfer Accounts](#); (2) [The Fiscal Consequences of Changing Demographic Composition](#).

## **NTA basics**

The NTA is designed to cover the entire life cycle, from birth to death, taking into account the fact that people of all ages produce, consume, transfer, and save. It is in fact an accounting framework that extends the standard national accounts system by adding age-based breakdowns. This allows us to identify when, throughout life, a person consumes more than they produce (for example, in childhood or old age) and vice versa. Additionally, as mentioned, it is possible to assess the fiscal contribution of different population groups not only by tax payments but also by transfers such as allowances, education and healthcare services, and family transfers.

## **Why is NTA relevant for us?**

In an era of rapidly aging populations, changes in the labor market and welfare system, and differential growth among the groups that make up the population, Israel cannot afford to rely solely on traditional macroeconomic accounting. By combining micro-level data on individuals with macro-level data (national accounts), the NTA not only quantifies the deficits in individuals' life cycles but also identifies their sources — whether through taxes, savings, or private and intergenerational transfers. In Israel, this tool is particularly vital due to the country's unique characteristics: its young population; its high dependency ratio (the ratio between the working-age population and the young and elderly populations who are not of working age) compared to other OECD countries; the significant gaps between population groups in employment rates and education levels; and the rapid growth of groups with a challenging fiscal profile. All these factors lead to a high aggregate life-cycle deficit relative to GDP, creating long-term economic and fiscal challenges. Through the NTA, it is possible to model what will happen to tax revenues and government expenditures in the coming decades, thereby creating long-term macroeconomic forecasts grounded in both economic and demographic estimates for planning policy alternatives in education, healthcare, taxation, and more.

## Uses of NTA worldwide

Due to its analytical power, NTA measures can now be found in many reports from the World Bank, the International Monetary Fund, and the United Nations Population Division. Partial NTA estimates already exist for over 100 countries, including nearly all OECD countries, with full estimates available for many subgroups within these countries. In contrast, until now, such estimates have not been available for Israel, which is unfortunate, especially given its unique economic and demographic profile.

Countries using the NTA calculate, among other things, how much of their citizens' consumption is funded by taxes they currently pay, how much is funded by public versus private intergenerational transfers — a ratio that impacts future national debt — and what is likely to happen to these estimates given anticipated shifts in population size and composition.

## What can we expect in the future? Projections until 2050

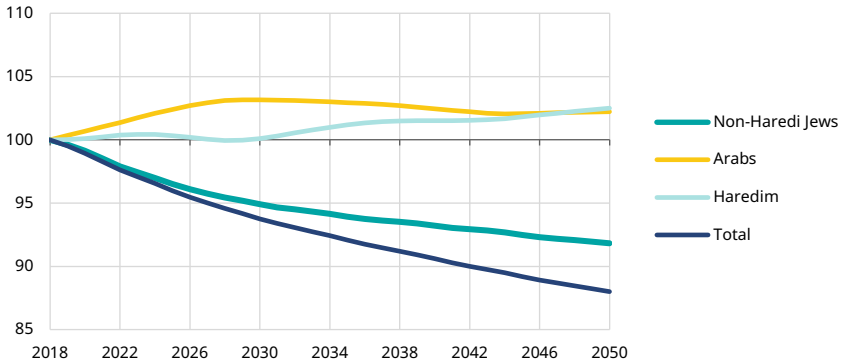
The Taub Center's NTA projections for Israel are based, among other factors, on the expected aging and *Haredization* of the population: the share of those aged 70 and over in the population will increase from 8.2% today to 11.2% by 2050, and the proportion of Haredim in the population will rise from about 12.5% today to 20.5% by 2050. These changes will lead to two main outcomes:

- The burden on economically productive ages and groups will increase, and the reliance on public intergenerational transfers will strengthen.
- Arabs and Haredim will slightly improve their fiscal support ratio (the ratio of tax payments to consumption of services) from its current low level, but for non-Haredi Jews — the only group currently financing almost all of its own consumption — a sharp decline in this ratio is expected due to their faster aging.

It appears, therefore, that unless the dependence of Israel's two poorest populations, the Haredim and Arabs, on public transfers decreases significantly, Israel's overall fiscal support ratio will decline by 12% by 2050. NTA calculations show that under current economic conditions, the aging population will

exacerbate the impact of the fiscal support ratio of Arabs and Haredim on the Israeli economy.

### Projected fiscal support ratios, 2018–2050, by subpopulation



Source: Kyrill Shraberman and Alex Weinreb, Taub Center

The major advantage of the NTA method is that the estimates it generates can help identify the areas where intervention through policy will yield the greatest benefit. If we wish to maintain fiscal balance, economic security, and quality public services in the future, active policy is needed to increase employment rates among Haredi men and Arab women.



# LABOR MARKETS





# The Israeli Labor Market 2025: From Strategic Dangers to Technological Ones

Michael Debowy, Gil S. Epstein, and Avi Weiss

## Introduction

The longest war in Israel's history ended not long ago. The outbreak of the war had far-reaching effects on the Israeli economy and on the labor market. After a brief uptick in unemployment at the beginning of the war, the labor market tightened and unemployment began to decline, alongside two additional developments: a reduction in the number of hours worked and an increase in wages. Over the past year, these trends have slowed: while the unemployment rate continued to fall, the number of hours worked stabilized, and a slight decrease in average wages was recorded — including a decline in wages in the high-productivity high-tech services sector. At the same time, during the prolonged war and its aftermath, residents of border communities and mobilized reservists suffered, and continue to suffer, repeated disruptions to their employment in addition to a host of personal issues that may have long-term effects on their employment prospects. Beyond the war, other factors also affected the Israeli economy, including demographic changes (driven by sectoral gaps in employment and education), international trade shocks, and technological changes.

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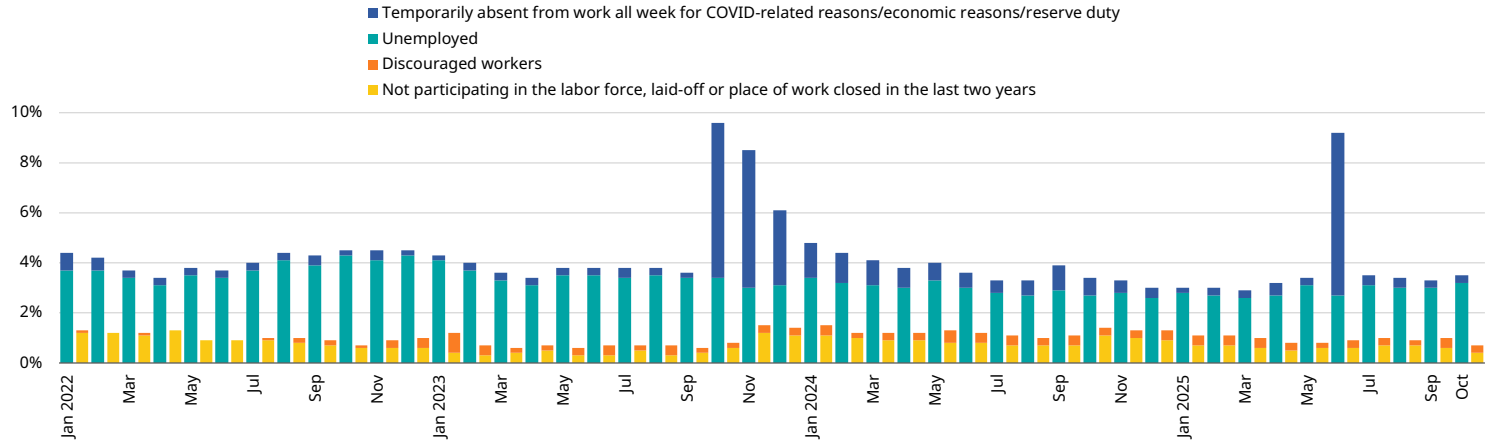
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In this chapter, we review the labor market following a war that lasted more than two years, and we discuss the state of the labor market in light of the trends of the past decade and in light of technological changes expected to shape the future. We begin by presenting aggregate unemployment and wage data and their trends relative to previous years and relative to other countries. We also discuss labor productivity in Israel, which is low by international comparison, and the factors influencing it. We then detail trends in employment, hours worked, and wages by economic sector, and describe differences in employment across demographic and geographic groups, including selected reasons for non-employment and for absence from work. Next, we discuss the impact of technological transformations on Israel's labor market, with particular focus on the artificial intelligence revolution. Finally, we consider possible implications of the current labor market situation and present projections regarding its future.

## **Unemployment, employment, and wages**

Figure 1 presents the unemployment rate alongside non-employment for selected reasons since early 2022. During the COVID-19 crisis, the definition of unemployment was expanded to include workers who were placed on unpaid leave (or were absent from work for another COVID-related reason) and individuals who left the labor force due to COVID-19. These categories were adjusted at the end of the crisis, and as of May 2022 included workers absent from work for economic reasons or individuals who had left the labor force due to layoffs or business closures in the previous two years. With the outbreak of the war, the definition was updated again so that workers temporarily absent due to reserve duty would also be included in the broad unemployment rate.

**Figure 1. The share of those unemployed**



Note: The rates shown relate to two different populations. The blue columns represent the share out of the population that participates in the labor force, while the yellow columns represent the share out of the population that does not participate in the labor force.

Source: Michael Debow, Gil S. Epstein, and Avi Weiss, Taub Center | Data: CBS

Prior to the outbreak of the war, Israel enjoyed historically low unemployment rates, and since the war began this rate has continued to decline, reaching its lowest level in five decades. Between January and September 2025, the unemployment rate averaged 2.9%, with an additional 0.3% temporarily absent for economic reasons or war-related reasons — a decrease of 0.3 and 0.6 percentage points, respectively, compared with the same period in 2024.<sup>1</sup> The tightening of the labor market during a prolonged, large-scale war is familiar from other examples around the world — such as Russia today or the United States during World War II — and reflects both the decline in available labor (a shock to the supply of workers) and the surge in demand for workers in the public sector and in defense industries.<sup>2</sup>

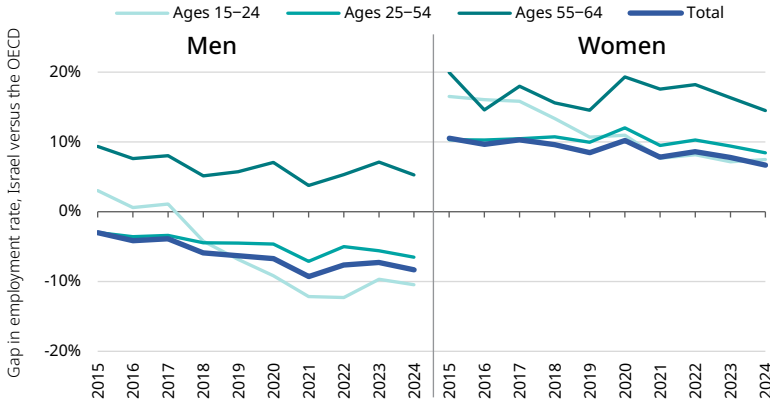
Despite this wartime tightening, Israel's low unemployment rate does not necessarily translate into a high employment rate when compared to other high-income countries (Figure 2): the employment rate of men aged 15–64 in Israel is about 8% lower than the average in high-income countries, while that of women is about 7% higher. A decade ago, Israeli men lagged by only 3%, but economic, geographic, and demographic factors have pushed the employment rate of Israeli men downward relative to their OECD counterparts. Similarly, a decade ago the employment rate of Israeli women exceeded the OECD average by 11%, yet improvements in women's employment in other high-income countries have narrowed this advantage.

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1 The figure for temporary absence from work does not include June 2025, due to a sharp rise in absences in that month following Operation Rising Lion (*Am Kelavi*). If June is included, the temporary absence rate in January–September 2025 is identical to that of the same period in 2024.

2 Unlike the examples mentioned (the US and Russia), Israel's defense industries produce a smaller share of the defense equipment consumed by the state, so the rise in demand for such equipment does not necessarily translate into increased hiring in these industries. Even so, during the war there was an observed increase in employment in public sector industries, suggesting that changes in public expenditure played a role in tightening the labor market.

**Figure 2. The gap in the employment rate between Israel and the OECD country average, by gender and age**



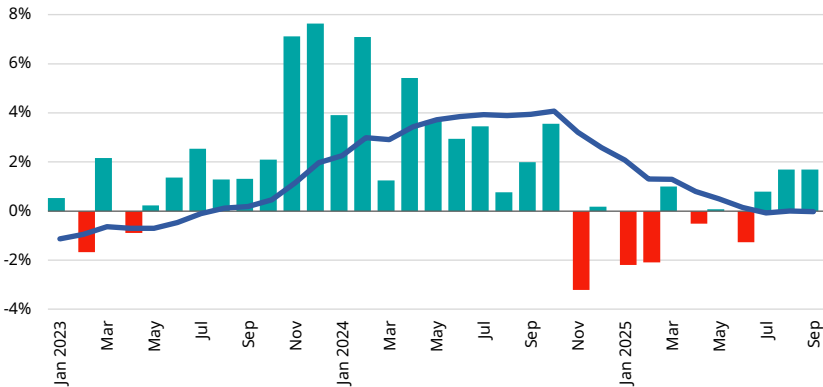
Note: The gap shown is the percentage difference between the employment rates reported in Israel and the OECD average.

Source: Michael Debowy, Gil S. Epstein, and Avi Weiss, Taub Center | Data: [OECD](#)

Despite the low unemployment rate, the past year saw a reversal of the wage increases of the previous two years and a real decline in employee earnings. Figure 3 presents the annual change in average monthly earnings over the past three years (in constant prices). In January–June 2025, the average wage in the economy (about NIS 13,600) was roughly 0.8% lower, on average, than in the same period in 2024. National accounts data indicate, at least for the first half of the year, that the annual decline in wages was driven by a sharper drop in output per hour worked, whose impact on wages was muted by an increase in hours worked.<sup>3</sup> As shown below, the aggregate decline in wages (alongside the rise in hours worked) was echoed across most industries, such that in the first half of 2025 the average Israeli worked more hours than in the first half of 2024, for lower pay.

3 According to national accounts data, real compensation per job fell by about 0.4% between the first half of 2024 and the first half of 2025, while real output per worker per hour declined by about 0.7% and hours worked rose by about 0.3%; the ratio of output to compensation per job remained unchanged.

**Figure 3. Annual change in average wages for employed persons**  
Constant prices



Note: Including paid employees temporarily absent from work.

Source: Michael Debowy, Gil S. Epstein, and Avi Weiss, Taub Center | Data: CBS

Alongside the decline in employee wages, there was a slight increase in the share of self-employed workers in the economy, which stood at about 12%–13% in 2024 — an increase of 2% from the previous year and 5% from 2014. This rise stems almost entirely from the growing share of small independent workers who do not employ salaried workers, whose share is approaching three-quarters of all self-employed individuals. This trend likely reflects, among other factors, the growing ease of starting a business in the information-technology era, changes in individual preferences and entrepreneurial culture, and adjustments to shifts in wage employment opportunities. Still, it is important to note that this is a limited-scale trend; although the long-term change in the share and composition of the self-employed is consistent, it remains modest in magnitude.

In summary, one can say that wartime conditions pushed unemployment to an unprecedented low, though this has not yet manifested in higher employment relative to other high-income countries. At the same time, the decline in wages (alongside the stall in the decline in hours worked) is cause for concern, especially given the previous pattern of year-to-year wage increases

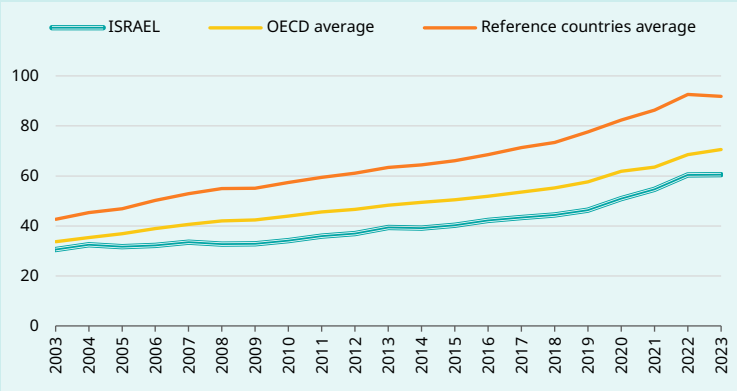
and steadily falling hours. If these developments signal a decline in Israeli productivity — due to the protracted war, global trade shocks, or technological changes — then the future of employment in Israel may challenge workers more than expected. Yet it is too early to determine whether this reflects a structural shift or a temporary shock, and, in any case, the aggregate trends mask substantial variation across industries, population groups, and regions of the country. We now turn to these differences.

## SPOTLIGHT

# Labor Productivity in Israel in International Comparison

Labor productivity in Israel is not high by international standards, and Israel's relatively high standard of living is largely the result of a high employment rate and long working hours (especially among women). The low productivity of Israeli workers is evident across several indicators, the most prominent of which is output per hour worked, which has been consistently below the OECD average since the beginning of the century, as shown in Figure 4. Particularly notable is the widening gap between Israel and other high-income, similar countries such as Austria, Denmark, Finland, the Netherlands, and Sweden (hereafter "the reference countries"). For example, while Israeli output per hour worked grew by just under 100% between 2003 and 2023, in the reference countries it increased over the same period by an average of 115%.

**Figure 4. Productivity per work hour, Israel and reference countries**  
PPP dollars, current prices



Note: Reference countries are Austria, Denmark, Finland, the Netherlands, and Sweden.

Source: Michael Debowy, Gil S. Epstein, and Avi Weiss, Taub Center | Data: CBS

Israel's low labor productivity has many sources, far too many to examine in depth here. For the purposes of this section, we focus on three key factors highlighted by Israeli researchers in recent years: the shortage of private and, more importantly, public capital in Israel; the population's relatively low level of human capital; and the low level of competition in the business sector due to the relative difficulty of doing business in Israel compared

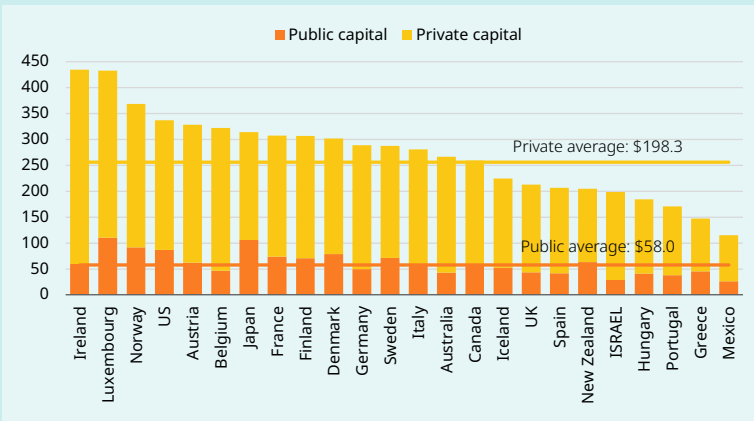
with other high-income countries.<sup>4</sup> We begin with an analysis of Israel's private and public capital stock relative to other countries.

In economics, capital — alongside labor — is typically viewed as one of the main factors of production. Capital includes equipment, machinery, buildings, vehicles, information-technology assets, and other fixed assets used by workers in the production process. Researchers have identified Israel's capital shortage as a factor that negatively affects labor productivity, especially the shortage of public capital such as transportation and energy infrastructure (Bental & Debowy, in preparation; Eckstein et al., 2019; Sarel, 2021). Figure 5 presents the capital stock per worker in selected OECD countries, divided into private capital and public capital. It is evident that Israel's total capital stock is below the average in high-income countries, and its public capital stock is exceptionally low.

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4 Beyond these three channels, another possible factor contributing to the gap between Israel and other countries in output per hour worked is the high number of working hours (and, more broadly, Israel's unusually high labor input, consisting of both a high employment rate and a high number of hours per employed person). Due to diminishing marginal returns to labor, there is a negative cross-country correlation between average working hours and average labor productivity (World Economic Forum, 2016). We refrain from delving into this issue because endogeneity makes it difficult to estimate the causal relationship between labor productivity and hours worked.

**Figure 5. Capital stock per worker (estimate), Israel and selected countries, 2024**  
 PPP dollars, 2017 prices



Note: The ratio shown between private and public capital refers to 2019 and does not reflect any subsequent changes, if such occurred; this is because the most recent data on the capital stock by private and public ownership are for 2019. The figure shown is based on an estimate of the 2024 capital stock derived from the 2019 capital stock and from each country's gross fixed capital formation data through 2023.

Source: Michael Debowy, Gil S. Epstein, and Avi Weiss, Taub Center | Data: IMF; OECD

The meaning of the figure is that, in carrying out their work, the equipment and resources available to the Israeli worker are more limited than those available to their counterparts in other high-income countries, and the gap between them is larger than

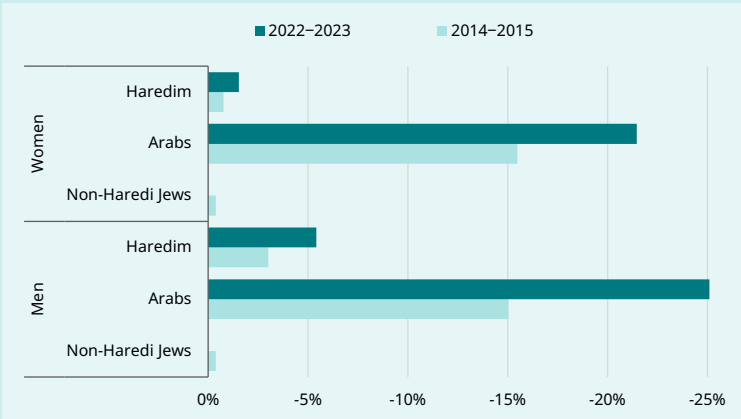
the gap in output per hour worked.<sup>5</sup> As noted, the disparity is particularly large in public infrastructure (where Israel's relative stock is slightly above half of the OECD average), and it is likely that this relative shortage harms productivity — whether by worker burnout and a less effective use of working time, or by inflating additional production costs that depend on public infrastructure, such as transportation, energy, and communications. Overall, closing the capital gap (private and public) between Israel and other high-income countries may reduce the productivity gap by about half (see Bental & Shami, in this volume), and focusing on public infrastructure is expected to have especially large effects (Eckstein et al., 2022).

In addition to physical capital, both private and public, labor productivity naturally also derives from workers' level of human capital, consisting of their set of skills, knowledge, and competencies.<sup>6</sup> A cross-country comparison shows that the level of human capital in Israel is lower than the average among high-income countries, despite the fact that in formal terms Israel is among the most educated countries in the world.<sup>7</sup> The OECD's Survey of Adult Skills (PIAAC), whose second round (conducted in 2022–2023) was published this year, assesses adults' foundational

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- 5 In 2023, the gap in productivity per work hour between Israel and the OECD countries was about 14%, while the gap in overall capital stock per worker was about 23%.
  - 6 For a review of the term *human capital* and its definition, see Goldin, 2019. For a review of the various skill components of human capital and their relation to economic returns, see Woessmann, 2024. For a review of the relation between human capital and economic growth, see Osiope, 2019.
  - 7 The share of men and women between the ages of 25 and 64 in Israel with a tertiary certificate (academic or non-academic) was a little over 50% in 2022, versus only about 40% in the OECD. In addition, the share of 25–64-year-olds in Israel who did not complete high school was about 12% versus an OECD average of about 20%. See the OECD website, [Education Attainment](#).

skills in each country in literacy and numeracy, with adaptive problem-solving added in the latest round. In all three domains, the average Israeli level was roughly 0.3 standard deviations below that of the average OECD counterpart, and among the Arab population the gap was especially pronounced, reaching a full standard deviation. Additional gaps appear between the Haredi population — particularly Haredi men — and other Jews. Figure 6 presents, for example, the level of literacy skills compared to the OECD average by gender and population group in each survey round. One can observe that the gaps between the Arab and Haredi populations and other Jews (and the OECD average) widened between rounds; a similar pattern also appears in numeracy (Appendix Figure 1).

**Figure 6. Skill gap of Israeli adults in literacy relative to the OECD average, 2014–2015 versus 2022–2023, by gender and population sector**



Note: The gap is calculated for each group relative to the OECD average for each gender group.

Source: Michael Debowy, Gil S. Epstein, and Avi Weiss, Taub Center | Data: CBS

It is reasonable to assume that the low foundational skills observed among the Arab population and Haredi men stem largely from gaps in the quantity and quality of education between these groups and the rest of the population in Israel, arising in part from funding disparities and structural differences across the sector education systems.<sup>8</sup> However, even after excluding Arabs and Haredim, the skill level of other Israelis is similar to the OECD average, despite Israelis being more formally educated than their counterparts in other high-income countries. Workers' skills are also influenced by vocational training — an area in which Israel stands out negatively among high-income countries (State Comptroller, 2021).

In addition to physical and human capital, Israeli labor productivity is also determined by the efficiency of business processes through which human and physical capital are matched to create value. This efficiency is reflected in aggregate in the economy's dynamism and competitiveness, and is influenced by the quality of regulation associated with doing business. In international comparison, Israel's regulatory ease of doing business is similar to the OECD average, although Israel stands out negatively on several key components of the composite index — most notably the difficulty of contract enforcement and the difficulty of registering property (Appendix Figure 2). Improving Israeli regulation through measures such as digitizing and automating bureaucracy, along with reforms in standards and the adoption of foreign (international) standards where possible, is expected to help raise the ease of doing business and, through it, labor productivity (Bank of Israel, 2019).

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8 For an analysis of budgeting gaps between the Hebrew and Arab education state systems, see Blass and Bleikh, 2024, 2025. For a review of characteristics of the Haredi education system, see Shahino Kessler, 2024.

To conclude, we note that Israel stands out negatively among high-income countries in its low labor productivity, which results from numerous factors (including some not discussed here). However, public policy has a decisive impact on the productivity drivers enumerated above. In particular, public investment in physical infrastructure, education, and vocational training — together with improved regulation as described here — has real potential to close the productivity gap with wealthier countries and to raise the standard of living in Israel. Beyond their direct impact, public investments in these areas are also likely to have indirect effects through private incentives. For example, public investment in physical infrastructure will increase the return to private investment in physical capital (and, indirectly, possibly also in human capital), thereby encouraging greater private investment. Ultimately, the challenge posed by Israel's low labor productivity is also an opportunity for targeted investments that can raise the country's standard of living.

## Employment, work hours, and wages by industry sector

Table 1 presents the change in the number of employed persons in the various industries of the economy up to September 2025, compared with the same quarter in 2022, 2023, and 2024. At the end of each column appears the industry's share (in percent) of total employment in the economy during the first three quarters of 2025. Between the first half of 2024 and the first half of 2025, the number of employed persons in the economy increased by about 79,000 — an improvement compared with the increase of only 33,000 between 2023 and 2024, but modest relative to the rise of more than 165,000 jobs between 2022 and 2023. Most of the growth in employment occurred in public sector industries (about 60,000 more employed persons in the first half of 2025 than in 2024), construction (21,000), and traditional manufacturing (14,000). By contrast, several industries experienced a substantial decline in the number of employed persons, including trade (about 16,000 fewer in the first half of 2025 than in 2024), accommodation and food services (12,000), and information and communications (14,000, excluding high-tech).

**Table 1. Change in the number of employed persons, 2025 versus 2022, 2023, and 2024, by industry sector**

Quarter	2025/2022			2025/2023			2025/2024			Share of labor market 2025
	1	2	3	1	2	3	1	2	3	
TOTAL LABOR MARKET	7%	7%	5%	3%	2%	2%	2%	2%	1%	100%
Agriculture, forestry, fishing	0%	-1%	3%	1%	-3%	-4%	7%	-4%	-5%	1%
Manufacturing (excl. paid employees in high-tech); mining, quarrying	-2%	-2%	2%	1%	2%	-2%	-1%	10%	-1%	7%
Electricity supply, gas, steam, air-conditioning	-28%	-12%	-20%	-13%	-2%	-17%	-18%	-25%	-19%	0.3%
Water supply; waste and refuse disposal	8%	-4%	6%	4%	-1%	3%	-11%	11%	18%	0.4%
Construction	18%	17%	24%	12%	9%	22%	13%	5%	11%	6%
Wholesale/retail trade (excl. diamonds); vehicle repair	11%	0%	-4%	3%	-9%	-1%	0%	-7%	-3%	10%
Transportation, storage, postal, and courier services	19%	10%	4%	1%	0%	-4%	-3%	-1%	-3%	4%
Accommodation and food services	0%	-11%	-1%	-17%	-17%	0%	-3%	-11%	11%	4%
Information and communication (excl. paid employees in high-tech)	-37%	-5%	5%	-48%	-27%	-11%	-32%	-19%	6%	1%
Financial and insurance services	14%	2%	-12%	12%	-7%	-6%	4%	1%	-6%	3%
Real estate	38%	23%	16%	13%	31%	48%	6%	14%	20%	1%

**Table 1 (continued). Change in the number of employed persons, 2025 versus 2022, 2023, and 2024, by industry sector**

Quarter	2025/2022			2025/2023			2025/2024			Share of labor market 2025
	1	2	3	1	2	3	1	2	3	
Professional, scientific, and technical services	-2%	3%	-2%	-3%	0%	-4%	1%	-3%	-6%	6%
Administrative and support services	14%	-1%	-8%	10%	-4%	-12%	4%	0%	-5%	4%
Local, public, security administration; NII	2%	8%	8%	7%	8%	2%	9%	5%	-1%	10%
Education	13%	15%	15%	7%	11%	8%	3%	6%	3%	13%
Health, welfare, social work services	7%	13%	11%	8%	9%	4%	0%	2%	-1%	12%
Arts, entertainment, recreation	7%	14%	6%	0%	20%	14%	3%	14%	11%	2%
Other services	27%	31%	12%	4%	13%	16%	-7%	7%	8%	3%
Household employment	-12%	-15%	-8%	-6%	-6%	-13%	9%	-2%	4%	1%
Extra-territorial organizations	-14%	-2%	40%	-48%	-9%	-10%	-20%	-2%	-3%	0.04%
Unknown industry sector	0%	16%	34%	-2%	22%	10%	14%	14%	15%	3%
High-tech services (paid employees only)	4%	3%	1%	0%	0%	0%	2%	1%	1%	6.5%
High-tech manufacturing (paid employees only)	7%	6%	6%	3%	3%	3%	0%	0%	0%	2.5%

Note: The values in the right column represent the percent of employed persons in the sector out of all employed persons in the labor force in January to June 2025.

Source: Michael Debowy, Gil S. Epstein, and Avi Weiss, Taub Center | Data: CBS

Alongside the change in the number of employed persons, there were also shifts in the number of hours worked by employees across industries. In general, the downward trend in working hours — which accelerated sharply with the outbreak of the war — was temporarily halted in the first half of the year, and the average number of working hours at the beginning of 2025 exceeded its 2024 level (Table 2). However, later in the year, the decline in working hours resumed, such that on average over the first three quarters of 2025, the average Israeli employee worked the same number of weekly hours as in the corresponding period of 2024 — 35 hours per week. Nonetheless, in several industries an increase in working hours was observed over the past year. These include administrative and support services (slightly more than one additional weekly hour in 2025 compared with 2024), accommodation and food services (slightly less than one additional hour), and information and communications (which includes most high-tech services; slightly more than half an additional weekly hour in 2025 compared with 2024). In most other industries, working hours were similar to or lower than in the previous year.

**Table 2. Change in average weekly work hours, 2025 versus 2022, 2023, and 2024, by industry sector**

Quarter	2025/2022			2025/2023			2025/2024			Share of labor market 2025
	1	2	3	1	2	3	1	2	3	
TOTAL LABOR MARKET	-1%	-6%	-3%	-1%	-3%	-2%	2%	0.3%	-3%	100%
Agriculture, forestry, fishing	-8%	-6%	-1%	-7%	-8%	-2%	-4%	-9%	-5%	1%
Manufacturing (excl. paid employees in high-tech); mining, quarrying	-1%	-6%	-1%	-0.3%	-2%	-3%	1%	2%	-1%	9%
Electricity supply, gas, steam, air-conditioning	2%	-5%	-10%	1%	-7%	-6%	2%	9%	-11%	0.3%
Water supply; waste and refuse disposal	4%	-12%	-4%	6%	-6%	-9%	13%	-5%	-10%	0.4%
Construction	-1%	-10%	-5%	0.3%	-5%	-4%	7%	-2%	-4%	6%
Wholesale/retail trade (excl. diamonds); vehicle repair	0%	-6%	-1%	-0.3%	-3%	-2%	-0.3%	-0.4%	-2%	10%
Transportation, storage, postal, and courier services	-3%	-7%	-9%	-4%	-3%	-7%	4%	1%	-3%	4%
Accommodation and food services	0%	-8%	-2%	-5%	-7%	0%	0.1%	1%	7%	3%
Information and communication (excl. paid employees in high-tech)	-1%	-5%	-4%	-2%	-2%	-4%	3%	4%	-3%	6%
Financial and insurance services	0.1%	-6%	-1%	1%	-4%	-2%	1%	0.4%	-3%	3%
Real estate	-6%	-6%	-6%	-10%	-13%	-4%	-5%	-7%	-2%	1%

**Table 2 (continued). Change in average weekly work hours, 2025 versus 2022, 2023, and 2024, by industry sector**

Quarter	2025/2022			2025/2023			2025/2024			Share of labor market 2025
	1	2	3	1	2	3	1	2	3	
Professional, scientific, and technical services	-1%	-9%	-6%	-1%	-6%	-5%	3%	2%	-3%	8%
Administrative and support services	4%	-4%	-6%	0.1%	-1%	1%	7%	6%	-2%	4%
Local, public, security administration; NII	0%	-1%	-2%	-1%	-1%	-1%	0.4%	2%	-1%	10%
Education	1%	-4%	-1%	1%	-4%	4%	3%	-3%	-7%	13%
Health, welfare, social work services	4%	-4%	-1%	0.2%	-1%	-1%	2%	-0.2%	-2%	12%
Arts, entertainment, recreation	-10%	-10%	-8%	-13%	-7%	-2%	-8%	-5%	-6%	2%
Other services	-4%	-7%	-1%	-5%	-3%	-3%	-1%	-3%	-3%	3%
Household employment	0%	6%	11%	1%	8%	13%	2%	11%	4%	1%
Extra-territorial organizations	13%	-47%	10%	20%	-48%	11%	41%	-50%	16%	0.03%

Note: The values in the right column represent the percent of employed persons in the sector out of all employed persons in the labor force in January to June 2025.

Source: Michael Debowy, Gil S. Epstein, and Avi Weiss, Taub Center | Data: CBS

Despite the increase in working hours, monthly wages of employees stagnated in the first half of 2025. As noted in the beginning of this chapter, the upward trend in wages that characterized recent years (and intensified at the start of the war) came to an end in the first half of this year, with a decline recorded in the real monthly wage of employees in many industries. The sharpest declines were observed in high-tech services (about NIS 400 less per month on average in the first half of 2025 compared with the first half of 2024); information and communications (about NIS 300, excluding high-tech); and professional, scientific, and technical services (about NIS 250, excluding high-tech). More moderate declines were recorded in trade, real estate, and the public sector, while in a number of industries wages increased, though typically by a marginal amount (these industries together employed roughly 45% of employees in the first half of 2025). The few substantial wage increases observed were in the finance industry (about NIS 1,000) and in transportation, storage, postal, and courier services (about NIS 300). In the third quarter of the year, a significant correction was recorded, and wages resumed an upward trend in most industries. However, even after this correction, the average annual increase in real wages was negligible in most industries (for example, about half a percentage point in the high-tech sector), and in some it was even negative (trade, education, public administration, and security). Overall, the upward trend in wages that had characterized most industries in previous years came to a halt in 2025, with the exception of a limited number of industries.

**Table 3. Change in real wages for paid employees (monthly average), 2025 versus 2022, 2023, and 2024, by industry sector**

Quarter	2025/2022			2025/2023			2025/2024			Share of labor market 2025	Average monthly wage 2025, NIS
	1	2	3	1	2	3	1	2	3		
TOTAL LABOR MARKET	2.5%	3.2%	4.4%	1.9%	3.4%	2.5%	-0.7%	0.2%	1.7%	100%	13,797
Agriculture, forestry, fishing	8.3%	10.3%	10.9%	10.3%	12.8%	11.1%	3.4%	4.0%	4.6%	1.1%	10,002
Mining, quarrying	-0.6%	15.1%	1.5%	-6.3%	15.2%	6.6%	26.7%	-10.0%	0.8%	0.1%	36,588
Manufacturing (excl. high-tech)	1.7%	3.7%	4.0%	3.3%	4.9%	2.8%	1.5%	-0.6%	1.2%	6.0%	15,827
Electricity supply, gas, steam, air-conditioning; water supply; waste and refuse disposal	3.2%	4.7%	6.8%	1.7%	6.7%	4.1%	0.3%	-0.8%	2.0%	0.8%	23,252
Construction	2.0%	3.3%	5.2%	1.9%	2.6%	2.6%	-0.2%	0.9%	2.7%	5.4%	12,887
Wholesale/retail trade (excl. diamonds); vehicle repair	-0.8%	0.3%	0.3%	0.2%	1.1%	1.1%	-1.1%	-0.9%	1.5%	12.6%	11,235
Transportation, storage, postal, and courier services	9.9%	8.8%	5.8%	2.3%	5.2%	4.5%	2.4%	1.0%	0.8%	3.7%	14,973
Accommodation and food services	3.3%	3.3%	3.9%	3.3%	4.3%	4.5%	0.0%	2.8%	2.9%	5.7%	6,424
Information and communication (excl. high-tech)	7.4%	-0.7%	-0.1%	9.4%	0.2%	1.6%	2.2%	-2.6%	-0.1%	0.4%	14,126
Financial and insurance services	3.2%	-7.1%	2.0%	9.2%	-0.7%	-5.6%	6.6%	0.1%	0.6%	2.8%	26,465
Real estate	8.5%	6.8%	10.4%	11.2%	9.8%	9.9%	0.3%	-2.0%	0.5%	0.9%	16,542

**Table 3 (continued). Change in real wages for paid employees (monthly average), 2025 versus 2022, 2023, and 2024, by industry sector**

Quarter	2025/2022			2025/2023			2025/2024			Share of labor market 2025	Average monthly wage 2025, NIS
	1	2	3	1	2	3	1	2	3		
Professional services (excl. high-tech)	4.1%	5.0%	5.8%	3.5%	5.6%	4.9%	2.0%	1.9%	3.9%	5.5%	15,312
Administrative and support services	10.1%	12.7%	11.8%	6.3%	6.3%	5.8%	1.1%	2.2%	3.7%	6.5%	8,411
Local, public, security administration; NII	2.2%	7.3%	2.8%	-3.0%	6.4%	0.2%	-1.3%	1.2%	-0.4%	3.8%	18,800
Education	2.6%	3.8%	3.5%	-2.8%	2.1%	-1.3%	-1.4%	-0.9%	-1.9%	15.0%	9,827
Health, welfare, social work services	-3.0%	0.6%	0.8%	-2.3%	2.3%	0.8%	-1.8%	1.4%	1.6%	14.9%	9,369
Arts, entertainment, recreation	3.1%	6.0%	5.4%	2.8%	6.5%	4.6%	-1.2%	1.9%	2.0%	1.8%	7,796
Other services	2.8%	3.9%	4.6%	2.5%	3.8%	4.0%	1.2%	2.3%	2.2%	3.5%	6,926
High-tech services	5.1%	3.1%	8.1%	4.5%	2.8%	5.7%	-1.8%	-1.0%	4.1%	7.0%	34,112
High-tech manufacturing	4.7%	12.3%	10.5%	6.1%	8.8%	6.2%	-2.7%	3.9%	0.7%	2.7%	30,545

Note: The values in the right column represent the percent of employed persons in the sector out of all employed persons in the labor force and their average nominal wages in the first half of 2025.

Source: Michael Debowy, Gil S. Epstein, and Avi Weiss, Taub Center | Data: CBS

The stagnation in wages in Israel is unusual compared with other countries in which wages have continued to rise consistently over the past two years, such as the US and Denmark, although the lack of data from all OECD countries makes it difficult to determine whether Israel stands out negatively or whether this is a global trend. It should be recalled in this context that in terms of employment and wages, Israel recovered from the COVID-19 pandemic at record speed, such that in 2022–2023 wage growth surged relative to other countries — a pattern that has since reversed after Israel completed its recovery while other countries were still in the midst of theirs.<sup>9</sup> In any event, this trend is not encouraging in itself, and the decline in wages in high-tech services is particularly concerning, both because it directly affects the average wage (through lower high-tech wages) and because of the indirect effect of high-tech wages on wages in other industries (Debowy et al., 2022).

To conclude, it should be noted that most of the employment growth over the past year occurred in public sector industries, construction, and traditional manufacturing, while declines in employment were observed in trade, accommodation and food services, and information and communications (excluding high-tech). At the same time, in most industries there was an increase in working hours and in many of them a slowdown in the increase in the real wage of employees — most notably in high-tech services, the industry with the highest wage levels. It remains to be seen whether this stagnation is merely a temporary setback or rather a structural shift signaling a halt or slowdown in the wage growth trend of previous years.

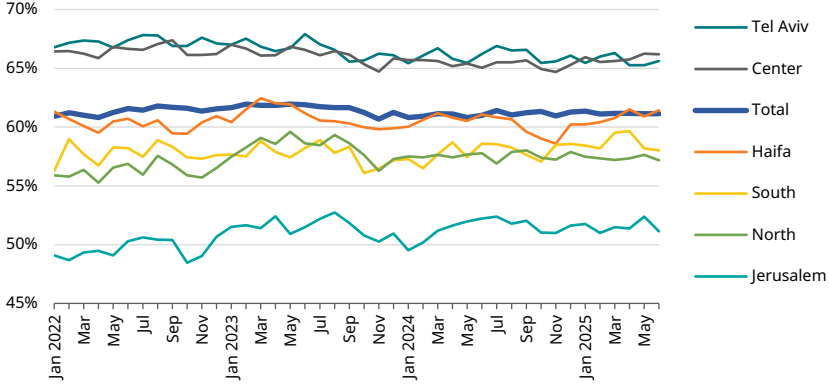
## Employment by geographic and demographic groups

From a geographic perspective (Figure 7), the employment gaps between the periphery and the center of the country — which deepened with the outbreak of the war — narrowed somewhat last year, and the gap between the Jerusalem and Southern Districts and the Central District reached its lowest level since 2019. However, geographic disparities remain substantial. Between January and September 2025, the average employment rate in the Northern, Southern, and Jerusalem Districts was 15% (about 10 percentage points) lower than the average employment rate in the Central and Tel Aviv Districts.

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9 For further discussion of the rate of growth in wages in high-income countries over the past few years, see Debowy et al., 2024.

**Figure 7. Employment rate among ages 15 and over, by district**

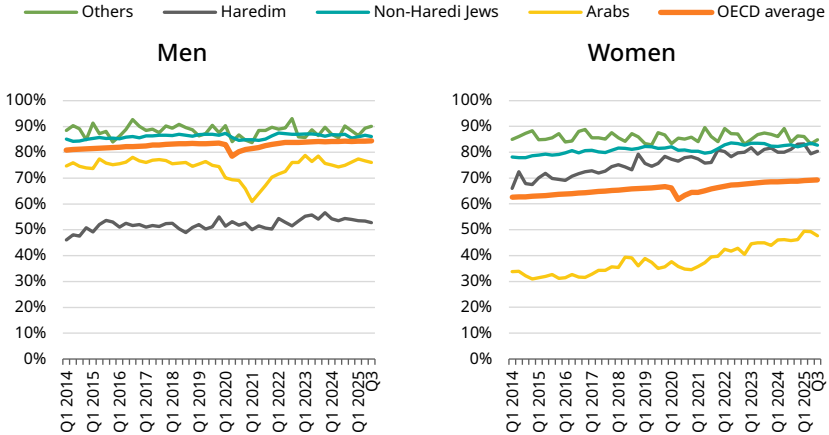


Source: Michael Debowy, Gil S. Epstein, and Avi Weiss, Taub Center | Data: CBS

Figure 8 presents the employment rates of men and women ages 25–66 from different population groups in Israeli society in recent years. After a sharp decline in the employment rate of Arab men at the beginning of the war, their employment rate rose again and stabilized at 77% in early 2025 — slightly below the peak of 79% in 2023. Among Haredi men, by contrast, after a slight increase in employment rates at the start of the war, the employment rate fell again in 2025 and is now lower than it was in 2023. Alongside these trends, non-Haredi Jewish men maintained a high employment rate of about 87%.

Among non-Haredi Jewish women, the high employment rate of the past two years was maintained, and among Haredi women the employment rate continued to rise. The gap between the two groups nearly closed over the past year, such that in the first quarter the employment rate of both stood at 83%. The employment rate of Arab women also continued to rise, reaching 49% in the first half of 2025. This impressive outcome implies that if the gender and sectoral trends observed since the outbreak of the war continue, the employment rate of Arab women will surpass that of Haredi men during 2026, and may even reach the government’s employment target (53% by 2030) ahead of schedule.

**Figure 8. Employment rate among ages 25–66, by population sector**



Source: Michael Debowy, Gil S. Epstein, and Avi Weiss, Taub Center | Data: CBS

Across the board, employment rates for women in nearly all population groups continued to increase, while the employment of Arab men and Haredi men — who experienced a decline at the start of the war — has recovered somewhat but has not returned to prewar levels. Beyond this, among both female and male workers, sectoral employment patterns remained similar to previous years, with men and women from different population groups concentrated in different industry employment clusters.

Table 4 presents the distribution of employed persons by gender, population group, and industry sector, averaged over the period October 2023 to December 2024. The table shows that one in five non-Haredi Jewish men and “Others” works in high-tech, alongside one in ten non-Haredi Jewish women, one in twenty Haredi men and women, one in fifty Arab men, and one in one hundred Arab women. The table also shows that employment in agriculture, manufacturing, infrastructure, construction, and transportation, storage, postal, and courier services is far more common among men than among women, particularly among Arab men (about half of whom work in these industries). By contrast, employment in education, health, and welfare services is far more common among women, except among Haredi men, who have an

unusually high share of teachers relative to other men — a pattern driven by the demographic and cultural needs of the Haredi sector.<sup>10</sup>

**Table 4. Employed persons by industry sector, gender, and population group, ages 25–64, October 2023 to December 2024**

	Men			Women			Share of labor market 2025	Average monthly wage 2025 NIS
	Non-Haredi Jews and Others	Arabs	Haredim	Non-Haredi Jews and Others	Arabs	Haredim		
High-tech	20%	2%	5%	10%	1%	5%	10%	33,119
Electricity supply, gas, steam, air-conditioning; water supply; waste and refuse disposal	2%	1%	0.04%	1%	0.2%	0.2%	1%	23,252
Local, public, security administration	7%	4%	3%	6%	3%	3%	4%	18,800
Knowledge-intensive services (excl. high-tech)	13%	5%	8%	14%	6%	11%	10%	18,631
Agriculture, manufacturing, mining, quarrying	10%	12%	7%	5%	5%	2%	7%	15,225
Transportation, storage, postal, and courier services	6%	13%	6%	2%	2%	1%	4%	14,973
Construction	7%	23%	4%	1%	1%	1%	5%	12,887
Trade	11%	15%	11%	8%	9%	5%	13%	11,235
Education	5%	5%	31%	18%	33%	42%	15%	9,827
Health, welfare, social work services	5%	8%	7%	19%	26%	20%	15%	9,369
Administrative and support services	4%	4%	2%	3%	5%	2%	7%	8,411
Arts, entertainment, recreation	2%	1%	4%	2%	1%	1%	2%	7,796
Accommodation and food services	3%	4%	3%	2%	2%	1%	6%	6,424
Other sectors	5%	4%	9%	10%	7%	7%	3%	6,378
Average wage 2022 (NIS 2025)	17,327	10,191	10,605	10,900	5,618	7,409		

Note: Knowledge-intensive services (excluding high-tech) include the following industries: information and communications (excluding high-tech); finance and insurance; real estate activities; and professional, scientific, and technical services (excluding high-tech).

Source: Michael Debowy, Gil S. Epstein, and Avi Weiss, Taub Center | Data: CBS

<sup>10</sup> In general, employment patterns among Haredi men are more similar to those of non-Haredi Jewish women than to any other group (including Haredi women or non-Haredi Jewish men).

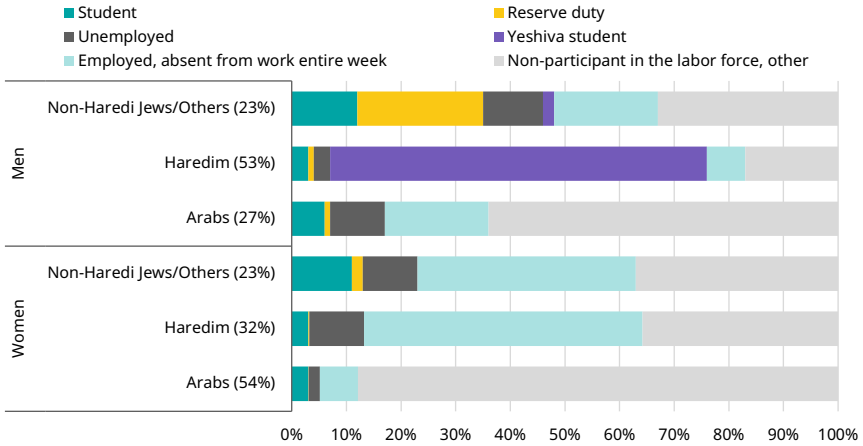
Wage gaps between genders and population groups are driven in part by the employment patterns of workers in each group. If the average wage were identical for all workers within each industry, the wages of non-Haredi Jewish men and “Others” would still be about 25% higher than those of non-Haredi Jewish women and “Others,” 33% higher than those of Arab men, and 38% higher than those of Haredi men. In practice, the final wage gaps (given within-industry wage differences) tend to be consistently larger, although the variation in employment distribution across industries accounts for a substantial share of the wage differences between the groups shown, as estimated in recent years.<sup>11</sup>

In addition to employment and wages, it is instructive to examine the reasons why Israelis from different population groups are not actively working (either because they are not employed or because they were completely absent from work for at least an entire week). Figure 9 presents selected reasons for non-employment or full-week absence from work, by gender and population group, averaged from the beginning of the war through the end of 2024 among individuals ages 25–44. The figure shows considerable variation across genders and groups. Nearly one in four non-Haredi Jewish men who did not work was serving in reserve duty during this period, compared with negligible shares in all other groups (note that among the total population aged 25–44, 5.3% of non-Haredi Jewish men were absent due to reserve service, compared with 0.5% among Haredi men and non-Haredi Jewish women). At the same time, yeshiva students constitute roughly 70% of young Haredi men who reported to the CBS surveyors that they were not working. Furthermore, among young non-Haredi Jewish men and women, more than one-tenth of those not actively working were enrolled in academic institutions or vocational training programs, compared with about 6% of Arab men and 3% of Arab women, Haredi men, and Haredi women. Among older adults (Appendix Figure 3), the factors discussed above account for a smaller share of the non-employed and those temporarily absent, although two factors remain prominent even at these ages: reserve duty (6% of non-employed and absent non-Haredi Jewish men) and yeshiva studies (51% of non-employed and absent Haredi men).

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11 In 2022, for example, the hourly wage of non-Haredi men and others was about 32% higher than that of non-Haredi women and others, about 64% higher than wages of Arab men, and about 39% higher than those of Haredi men.

**Figure 9. Non-employed persons and those absent from work the entire week, by selected reasons for absence, gender, and population group, ages 25–44, October 2023 to December 2024**



Notes: The percent in parentheses refers to the percent of non-employed persons or those absent from work all week in the group. Those studying and yeshiva students includes only those who report that they do not work or are not seeking employment. Reservists include individuals who were absent from work all week due to military reserve duty as well as unemployed individuals who were unable to look for a job for a week due to military reserve duty. “Employed, absent from work entire week” does not include workers who were absent due to reserve duty.

Source: Michael Debowy, Gil S. Epstein, and Avi Weiss, Taub Center | Data: CBS

To conclude, several trends in the gender and population-group characteristics of employment in Israel can be identified. First, while the employment rates of Arab and Haredi men have remained essentially unchanged, the employment rates of women in all population groups continue to rise. Second, gender and population groups tend to cluster in different industry sectors: non-Haredi Jewish men and women in high-tech and knowledge-intensive services; Arab men in construction and other production and craft industries; and women in all groups (alongside Haredi men) in education, health, and welfare services. These differences in industry employment explain part of the wage gaps between the groups. Third, non-employed individuals in the different groups

spend their time in different ways, and in groups with higher employment rates, a larger share of the non-employed are either actively searching for work (the unemployed) or investing in their human capital (students).

These trends emerge against the backdrop of far-reaching technological changes, and the employment patterns of each group (as well as patterns of non-employment) point to a variety of ways in which these changes affect different groups. We now briefly review some of the effects of the technological changes of recent decades on Israel's labor market and discuss the adoption of artificial intelligence technologies and their current impact on the labor market.

## The labor market amid technological change

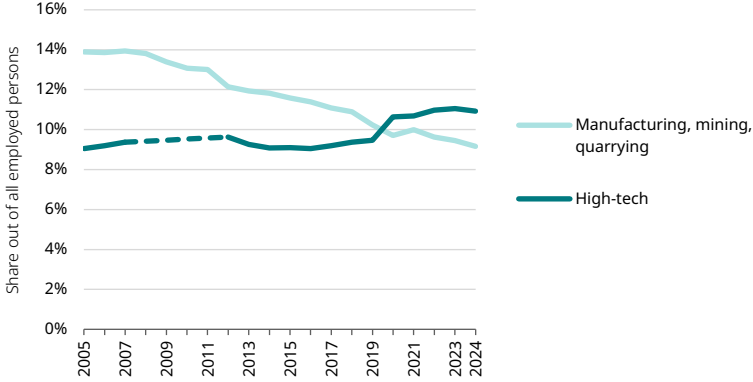
The effects of technological change on the economy in general, and on the labor market in particular, are extensively discussed in the economics literature. The past several decades have been marked by an increasing trend toward automation and the adoption of information technologies across the world's economies. Economic research indicates that because of these processes, the impact of technological change on employment and wage disparities is substantially larger than its aggregate impact on productivity or wages (Acemoglu & Restrepo, 2022).

Mechanization, robotics, and automation have displaced workers in many industries, who in turn have shifted to compete with similarly skilled workers in industries where technological change has been less pronounced. At the same time, information technologies have increased the productivity of many workers and have even driven greater demand for workers in many fields, creating entirely new types of jobs.<sup>12</sup> Thus, alongside significant declines in employment in certain occupations — such as farmers or various craft occupations (watchmakers, upholsterers, or bookbinders, for example) — technology has also contributed to the growing prevalence of other occupations — such as couriers or content creators — and to the emergence of entirely new ones, such as drone operators or artificial intelligence engineers. Beyond its effect on the occupational mix, technology also affects the industry composition of employment, as can be seen, for example, in the divergent trends of Israel's high-tech sector and manufacturing sector in recent decades (Figure 10).

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12 For further discussion of the various mechanisms through which technology affects the economy, see Autor, 2022.

**Figure 10. Share of employed persons in manufacturing and high-tech**



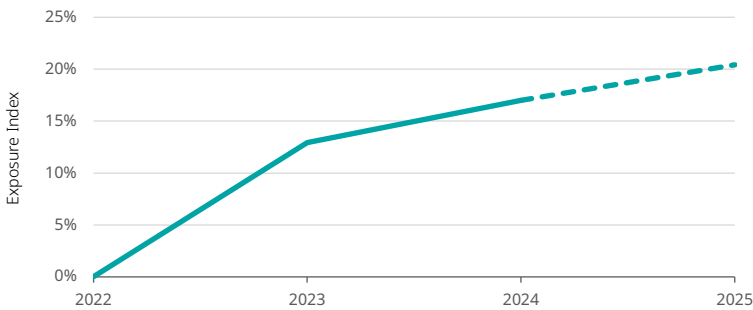
Note: The high-tech rate refers to paid employees only. For 2008–2011, there was no reliable estimate of this rate. It should be emphasized that there is overlap between the share of employed persons in high-tech and the share employed in manufacturing, due to the high-tech manufacturing industries, which have accounted for between one-quarter and one-third of both high-tech and manufacturing in recent years.

Source: Michael Debowy, Gil S. Epstein, and Avi Weiss, Taub Center | Data: CBS

The technological development with the most dramatic impact on the labor market in recent decades has, of course, been the information-technology revolution and the rise of the high-tech sector, whose share of employed persons grew by 21% between 2005 and 2024 (Figure 10). The use of information technologies has also influenced employment in other sectors. Industries in the upper half of IT-intensity growth between 2005 and 2023 increased their employment share by about 13% on average during this period, whereas industries in the lower half reduced their employment share by about 11% on average. Other technological changes have led to direct automation and to workforce reductions in certain industries. For example, the increase in the rate of mechanization in manufacturing (measured as the share of machinery and other equipment, excluding vehicles, in the industry’s net capital stock) accounts for roughly 40% of the decline in the industry’s employment share — a decline of about 34% of between 2005 and 2024 (Figure 10). It is worth noting that during this period, the relative wage (wage premium compared with the economy-wide average) of workers who remained in the industry rose by 29%.

Focusing on the past two years, the central technological transformation of today is the generative AI revolution. The rapid rollout of new tools and the pace of technological progress are reverberating across the world, and Israel's labor market is slowly adapting to the possibilities opened by this new technology. Conservative estimates suggest that in the coming years generative AI tools will be able to perform about 20% of the tasks of the average Israeli worker better than a human (Figure 11), and this figure exceeds 50% in the occupations in which nearly one-sixth of current workers are employed. As the adoption of generative AI tools deepens, the demand for various types of workers may shift, and many workers in these occupations may cease to work in them.

**Figure 11. Average exposure to artificial intelligence (estimate)**



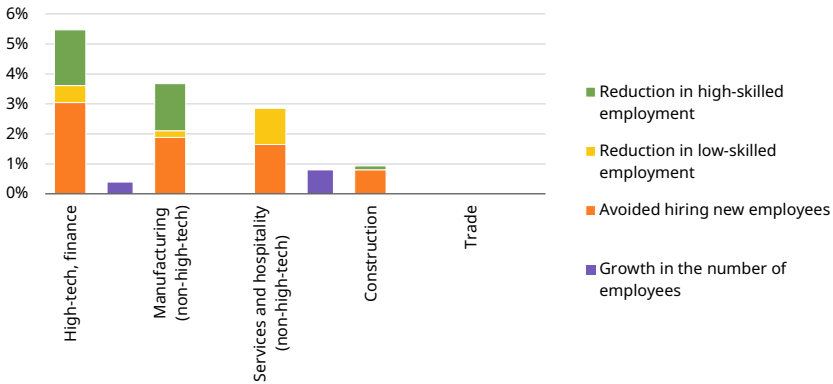
Note: The estimate for 2024 is based on the index (E1) from Debowy et al. (2025), while the estimate for 2025 is calculated as this index plus one-tenth of the gap between it and the higher index from the same study (E2). This follows Acemoglu (2024), who refers to the latter index (E2) as an estimate of the generative AI capabilities expected to be realized by the end of the coming decade.

Source: Michael Debowy, Gil S. Epstein, and Avi Weiss, Taub Center | Data: CBS

The adoption of artificial intelligence in Israel is still in its early stages, according to the CBS Business Trends Assessment Survey (2025). About 28% of businesses have adopted the use of AI as part of their overall business activity, and only 16% use AI to perform tasks previously carried out by human workers — although these figures are much higher in the high-tech and finance industries. Moreover, among employers who have adopted AI,

more than 9% reported that it had reduced their workforce (with about 1% reporting an increase in employee numbers), though this figure varies greatly across industries. Figure 12 presents the share of employees whose employers reported that the number of workers in the business changed due to the use of artificial intelligence, by industry sector. A decline in the number of employees as a result of AI adoption was reported by the employers of 5.5% of workers in high-tech and finance, and nearly one-third of these employers reported reductions specifically among workers with high skills or higher education. In manufacturing and services, employers of roughly 3% of workers reported a decline, while in other industries the share of affected workers was negligible.

**Figure 12. Share of employed persons whose workplace staff size changed due to the use of artificial intelligence, by industry sector, June 2025**



Source: Michael Debowy, Gil S. Epstein, and Avi Weiss, Taub Center | Data: CBS

It is still too early to determine the ultimate implications of the generative AI revolution for the labor market, but these findings and others (such as the correlation between AI exposure and employment documented in Debowy et al., 2024) suggest that we may see far-reaching changes in the composition of employment and wages in the economy as a result of this technological transformation. It is to be hoped that the ongoing public debate on this issue will lead to policies that ease workers' adjustment to the changing reality, as many researchers recommend (OECD, 2023; Sumkin & Sagy, 2020).

## Conclusion

In this chapter we presented the main developments in the Israeli labor market over the past year, against the backdrop of previous years and in light of future challenges. We showed that the unemployment rate declined slightly and reached an unusually low level by any historical or international standard, while the decline in working hours and the rise in wages came to a halt — two developments that represent a reversal of recent trends. We also showed, from an industry perspective, that most of the employment growth came from public sector industries, construction, and traditional manufacturing, while wage declines were recorded in high-tech and other knowledge-intensive services, as well as in public sector industries. We pointed as well to a significant increase in employment gaps between the center and the periphery, to the lack of change in the employment of Arab men and Haredi men, and to the continued, steady rise in employment among women across all population groups. In addition, we presented the main differences in the industry composition of employment among men and women from different groups in Israel, alongside differences in selected reasons for non-employment or full-week absence from work. Finally, we reviewed the labor market through the lens of technological change and presented some of the potential — and actual — effects of the generative AI revolution on Israeli workers.

With respect to the future of the labor market, we reviewed short-term forecasts from various institutions. According to the Bank of Israel's forecast from September 2025, the broad unemployment rate will average 3.4% for the year as a whole, and will remain at this level on average during 2026 as well (Bank of Israel, 2025). The forecast of the Ministry of Finance's Chief Economist Division projects a slightly lower unemployment rate, averaging 3.05% in 2025 (Ministry of Finance, 2025). The authors also note that opinions in the forum are divided regarding a possible rise in the labor-force participation rate.

It appears that unemployment will remain low in the foreseeable future, but the slowdown in wage growth — in high-tech and in other industries — is a cause for concern. The government of Israel has undertaken fiscal adjustments to finance the war, which have reduced workers' net incomes and curtailed investments in productivity enhancing areas such as transportation, education, and health systems. It is to be hoped that while such adjustments will continue

to be made as needed to reduce public debt and support renewed security preparedness, the impact on social investment and on workers will be kept to the necessary minimum. Moreover, although the economy and labor market remained resilient in the face of the war's challenges, some of its indirect effects may have been delayed during the war and may now come to the fore. In this context, employment and wages among groups directly affected — such as bereaved families, evacuees, reservists, and their families — should be closely monitored. The rehabilitation and advancement of these groups, and of Israeli workers as a whole, should stand at the forefront of policy makers' considerations as they shape labor market policy for the day after the war.

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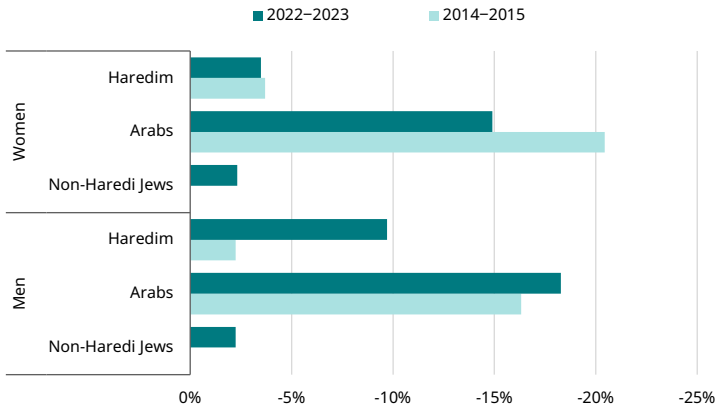
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## Appendix

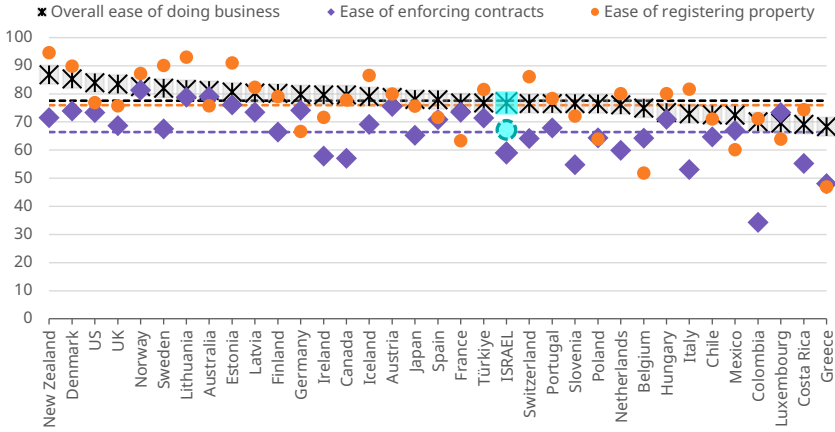
**Appendix Figure 1. Skill gap of Israeli adults in mathematics relative to the OECD average, 2014–2015 versus 2022–2023, by gender and population sector**



Notes: The gap is calculated for each group relative to the OECD average for each gender group. No official data have been published for Arab men and women, and the estimates presented here were calculated based on the gap between the performance of all Israelis and that of Jews, together with the relative size of the populations.

Source: Michael Debowy, Gil S. Epstein, and Avi Weiss, Taub Center | Data: CBS

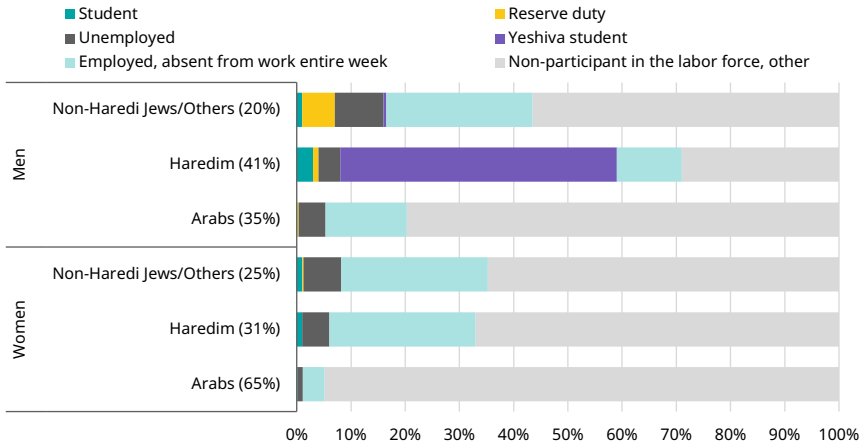
**Appendix Figure 2. Ease of Doing Business Index, selected countries, 2020**



Note: The horizontal lines represent the average score of all OECD countries for the item marked in the same color.

Source: Michael Debowy, Gil S. Epstein, and Avi Weiss, Taub Center | Data: CBS

### Appendix Figure 3. Non-employed persons and those absent from work for the entire week, by selected reasons for absence, gender and population sector, ages 45–64, October 23 to December 2024



Notes: The percent in parentheses refers to the percent of non-employed persons or those absent from work all week in the group. Those studying and yeshiva students includes only those who report that they do not work or are not seeking employment. Reservists include individuals who were absent from work the entire week due to military reserve duty as well as unemployed individuals who were unable to look for a job for a week due to military reserve duty. "Employed, absent from work entire week" does not include workers who were absent due to reserve duty.

Source: Michael Debowy, Gil S. Epstein, and Avi Weiss, Taub Center | Data: CBS



## *Executive Summary*

# **Employment Trends and Artificial Intelligence in the Israeli Labor Market**

Michael Debowy, Jonathan Winter, Gil S. Epstein, Avi Weiss, and Efrat Behar-Netanel

Artificial intelligence is developing and being implemented at a record pace. Not only does it generate substantial public interest but it also gives rise to fundamental questions and serious concerns about the future of the labor market. Continuing an earlier study that dealt with an initial mapping of exposure to artificial intelligence in the labor market, this study analyzes the impact of these new technologies on workers in Israel, based on labor force survey data from 2023–2024 and emphasizes the strengthening of the technology. The study shows that in 2024 there has been a sharp rise in exposure to AI in Israel, particularly in those professions where replacement by the technology is most likely.

The characteristics of exposure to artificial intelligence, as identified in the study, enable an assessment and projection of which occupations in Israel will be more and which will be less affected by AI. Hence, it is possible to forecast which populations are likely to “benefit” from it and which may be harmed.

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\* Michael Debowy, Researcher, Taub Center for Social Policy Studies in Israel; doctoral student, Department of Economics, Ben-Gurion University of the Negev. Jonathan Winter, Researcher, Mosaic AI Policy Institute. Prof. Gil S. Epstein, Principal Researcher and Chair, Taub Center Labor Market Policy Program; Department of Economics, Bar-Ilan University. Prof. Avi Weiss, President, Taub Center; Department of Economics, Bar-Ilan University. Efrat Behar-Netanel, CEO, Mosaic AI Policy Institute. This study was first published in April 2025 and is available on the Taub Center [website](#).

Between 2023 and 2024 there was an increase of at least five percentage points in the average worker's level of exposure – a growth explained primarily by technological advancement rather than by changes in the labor market. The sharpest increase in exposure was recorded among occupations characterized by a high risk of replacement by artificial intelligence.

## **Exposure levels**

In order to estimate the share of individuals exposed to artificial intelligence in a given industry or population, several measures have been developed. The exposure score is calculated based on the scope of tasks that artificial intelligence purports to perform out of all the tasks comprising the occupation. The score assigned to each occupation reflects the percentage of that occupation's typical tasks that artificial intelligence can carry out with human-level quality, at a speed exceeding that of a human worker.

## **Replacement or complementarity? It all depends on the occupation**

The study sharpens the distinction between occupations in which artificial intelligence complements human workers and assists them, and those in which it may replace them. The sharpest increase in exposure levels between 2023 and 2024 was recorded in occupations with “low complementarity” — namely those in which human intervention is not necessary to complete the task, and, therefore, technology may replace the worker. The financial, administrative, and commerce sectors are notable for high exposure levels and particularly high substitutability. In contrast, occupations such as teaching and medicine, characterized by “high complementarity,” are also exposed to the technology, but workers in these fields are expected to be assisted rather than replaced by it.

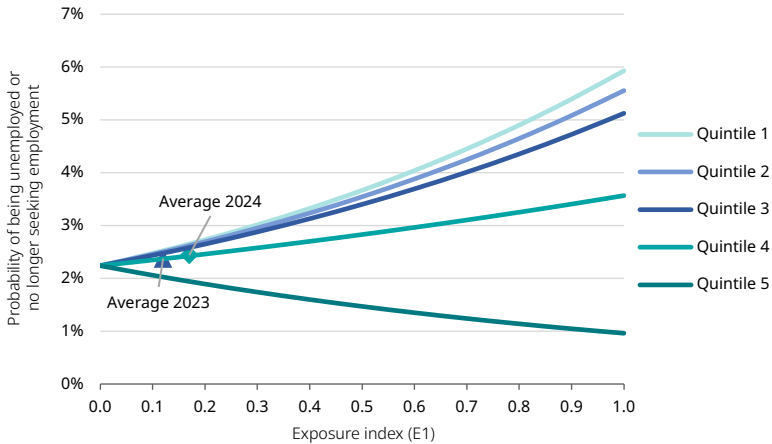
## **Women show higher exposure levels to AI than men, and particularly in those occupations with a higher risk of replacement and notable gaps in the Arab sector**

The study found that the exposure rate of female workers is higher than that of male workers. However, female workers are “polarized” on the complementarity index, with a relatively high share concentrated at the extremes of the distribution. The main source of the exposure gap between the genders arises from occupations at the highest risk of replacement: more than one-quarter of women fall into this group compared with less than one-fifth of men, meaning that women’s exposure rates are significantly higher than those of their male counterparts (in part due to women’s concentration in occupations such as secretarial roles, sales, and telephone customer service). This pattern holds within each sector as well. In fact, the largest gender gap is in the Arab sector, where female workers’ exposure rate is twice that of male workers on average — although exposure rates among Arab women and Arab men remain significantly lower than for Jewish women and Jewish men.

## **High exposure rates to AI raise the risk of remaining outside the labor market**

The study shows that average exposure rates differ between employed and unemployed groups, and that among self-employed individuals and those not participating in the labor market, the exposure rate is somewhat lower than among employees and the unemployed. Moreover, the AI exposure index predicts non-employment: that is, an individual’s probability of being unemployed or discouraged from seeking employment rises significantly with increased exposure to artificial intelligence. This finding may indicate the onset of a tangible impact of artificial intelligence on employment levels in Israel.

### The probability of being unemployed or discouraged from job search, by exposure index (E1) and educational-attainment quintile, skill-adjusted measures, men and women, aged 25–64, 2024



Notes: Standardized for age, education, gender, sector, economic branch, district of residence, evacuated locality status, reserve duty service, and survey year.

Source: Debowy et al., Taub Center and Mosaic Institute

The researchers note that for the first time, it is possible to see unequivocally that exposure to artificial intelligence goes hand-in-hand with non-employment (especially in occupations where its potential to replace workers is higher). It is possible that as early as in 2024 Israeli workers were dismissed (or failed to find a job) due to AI’s ability to perform many of their tasks, or due to the expectation that artificial intelligence could perform them. They add that the study vividly illustrates the pace of technological development and the scope of its effects on the Israeli labor market. It highlights significant gaps in both exposure and complementarity across different groups in the labor market, although there is no doubt that AI implementation presents fertile ground for increasing productivity and output in the economy. An informed policy is required to steer the adoption of artificial intelligence in Israel in an optimal manner, enabling the maximization of benefits for the economy and the state while preserving the economic and social security of the citizens.



## *Executive Summary*

# **Employment in the High-Tech Sector and Technology Occupations: Present and Future Challenges**

Michael Debowy, Gil S. Epstein, and Avi Weiss

Israel's high-tech industry, the most productive sector in the economy, is entering a challenging period. This study reveals that the war and the artificial intelligence revolution are leaving employment in the sector in worse shape than in the past. The researchers point to rising unemployment among high-tech workers and declining employment in periphery areas. In addition, the study highlights deep social and demographic gaps, showing that only a small share of the Arab and Haredi (ultra-Orthodox) populations are employed in the field.

### **Rising unemployment in the high-tech industry**

Between 2014 and 2023, the number of high-tech workers grew by about 60% — around 150,000 employees — mainly in research and development. Alongside this growth in employment, worker wages in the sector also rose: during this period, the average wage of technological and support staff in high-tech services was significantly higher than the average wage in other industries.

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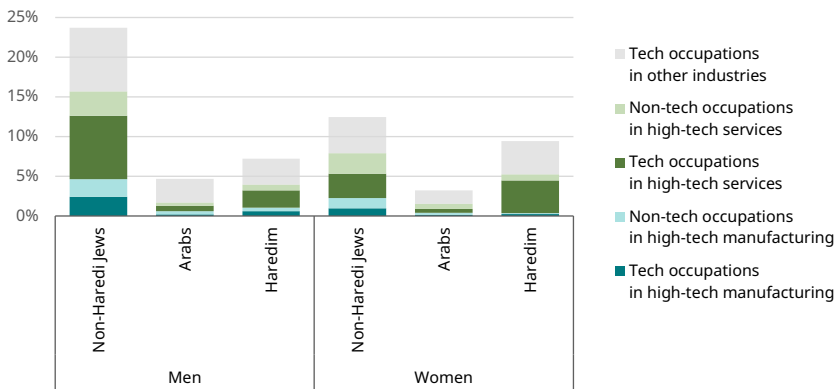
\* Michael Debowy, Researcher, Taub Center for Social Policy Studies in Israel; doctoral student, Department of Economics, Ben-Gurion University of the Negev. Prof. Gil S. Epstein, Principal Researcher and Chair, Taub Center Labor Market Policy Program; Department of Economics, Bar-Ilan University. Prof. Avi Weiss, President, Taub Center; Department of Economics, Bar-Ilan University. This study was first published in September 2025 and is available on the Taub Center [website](#).

However, since the outbreak of the war, unemployment rates in high-tech services have climbed above the national average. Moreover, during 2024 the share of job vacancies in technological professions dropped compared to other occupations. This finding matches reports over the past year of a “junior talent tech crisis” in the sector — a sharp decline in available positions for inexperienced workers.

## Social and geographic gaps

The study points to substantial employment disparities in high-tech by gender and population group. While nearly one-quarter of non-Haredi Jewish men are employed in high-tech industries and technological occupations, only about 12% of non-Haredi Jewish women work in these fields. Among the Haredi and Arab populations, employment rates in high-tech are even lower: less than 10% among Haredim and less than 5% among Arabs.

### Employment rate in high-tech by gender and sector, ages 25–65, 2014–2018

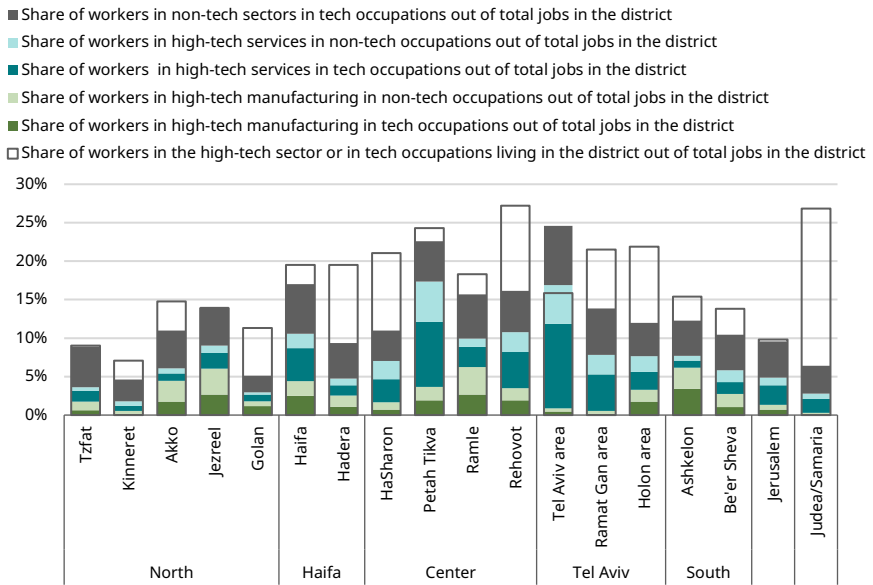


Source: Michael Debowy, Gil S. Epstein, and Avi Weiss, Taub Center | Data: CBS

Geographically, in 2023 and 2024 employment in the high-tech sector declined in most areas of the country, particularly in the Northern, Kinneret, and Tzfat districts, while the Jerusalem and Jezreel districts saw a slight increase during

this period. The study also shows that the Tel Aviv area leads in high-tech employment, followed by the Petah Tikva, Haifa, and Rehovot districts.

### Employment in the high-tech sector and technology occupations, by district, 2018–2024

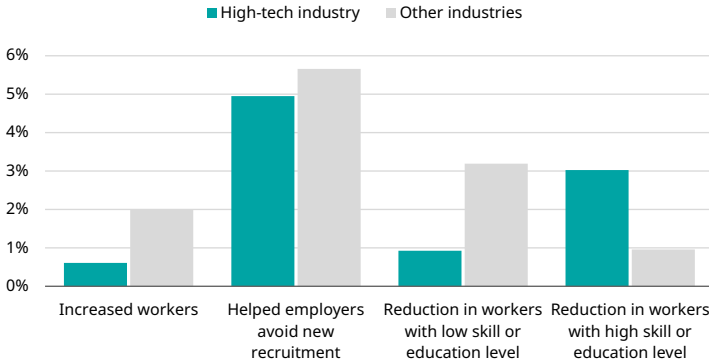


Source: Michael Debowy, Gil S. Epstein, and Avi Weiss, Taub Center | Data: CBS

### The impact of artificial intelligence on the high-tech sector

The study shows that high-tech services are leading the Israeli economy in adopting artificial intelligence, and as a result there has been a notable reduction in the recruitment of new employees and the replacement of skilled and educated workers with AI technologies. The researchers emphasize that, together with the high level of exposure of high-tech workers to artificial intelligence — shown in a previous study — this trend may lead to a significant long-term decline in employment in the sector in Israel.

### ***How has the use of artificial intelligence impacted the overall number of workers in business? Businesses that used artificial intelligence, 2025***



Note: Businesses are weighted by their share of employees. The responses are based on businesses that reported adopting artificial intelligence technology (in high-tech, these businesses employ about two-thirds of workers, while in the rest of the economy, they employ about one-quarter).

Source: Michael Debowy, Gil S. Epstein, and Avi Weiss, Taub Center | Data: CBS

Following the study's findings, the researchers recommend formulating policies to leverage the artificial intelligence revolution to promote high-quality employment and minimize the harms of automation. They also stress the importance of making employment in high-tech a central goal in plans for rehabilitating Israel's periphery regions.

The researchers note that the adoption of artificial intelligence and the acceleration of automation are transforming employment in the high-tech sector. In recent years there has been an increase in the wages of support staff (non-technological positions) alongside a decline in the number of people employed in such roles, accompanied by a reduction in their traditional tasks. All of these factors, together with the additional effects of the war, underscore the growing need for policy measures to support worker training and retraining and to preserve the key growth engine of the Israeli economy.



# HEALTH



# The Paradox of Israel's Healthcare System: Between National Achievements and Ongoing Erosion

Nadav Davidovitch, Natan Lev, and Ofir Gonen

## Introduction

The healthcare sector in Israel presents something of a paradox. In October 2025, the Ministry of Health held a press conference following the publication of an OECD comparative report on health indicators across countries. The data, referring to 2023, show that life expectancy in Israel rose to 83.8 years (85.7 for women and 81.7 for men), placing the country fourth among OECD nations — after Switzerland (84.3), Japan (84.1), and Spain (84.0). The nearly one-year jump in life expectancy between 2022 and 2023 is considered exceptionally positive, since, unlike other countries where a similar rise reflected a rebound from a sharp decline during the COVID-19 pandemic, Israel's drop during the pandemic was relatively moderate. As a result, the post-pandemic increase is even more striking relative to other countries.<sup>1</sup>

Why, then, is this seemingly a paradox? When these achievements are placed alongside investment figures — as will be shown in this chapter, and as past data also indicate — national healthcare expenditure in Israel is among the lowest among the high-income countries of the world, and current per capita

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1 See the Ministry of Health website, [Significant Increase in Life Expectancy in Israel](#).

healthcare spending in purchasing power terms is also lower than in most OECD countries. The common claim that Israel is a younger country, and therefore age adjustments are important, is indeed valid and necessary. However, comparative studies show that even after adjusting for the population's age structure and for long-term care expenditures, the Israeli system still spends less on healthcare — particularly public spending — than other developed systems, while achieving better health outcomes (Levy et al., 2022b).

The apparent paradox between relatively low healthcare spending and comparatively good health outcomes in Israel is not new; it has been discussed for many years. The healthcare system contributes only up to about 20% to overall health outcomes, whereas social, economic, environmental, and political factors play a far larger role (Marmot, 2011). Even so, the healthcare system in Israel is considered unique, including during the October 7th War — the longest war in the country's history. Despite the challenges, the system was among those that responded relatively well, from the first days of the war and to this day.

But can this resilience last forever? Insufficient investment is reflected, for example, in the lack of protective fortification at Soroka Medical Center (and many others, particularly in the periphery), which suffered severe damage during the war with Iran and is still struggling to receive the funding it needs for rebuilding, relying largely on donations. It is also reflected in the neglect of the Tipat Halav network (Family Care Centers) and the School Health Service, which face difficulty administering vaccinations on schedule and in managing vaccine hesitancy — factors that contributed, among other things, to a measles outbreak (Davidovitch et al., 2025; Levy et al., 2022a). Each case is complex and requires specific analysis, but, ultimately, when national investment in healthcare is low, the consequences are felt, and they disproportionately harm poor and marginalized populations.

The challenges of recent years have exposed the vulnerabilities of a system that has succeeded in relying on the *health paradox* for far too long. The medical workforce crisis is deepening: the number of active physicians stands at 3.5 per 1,000 people, compared with an OECD average of 3.9, and forecasts indicate that the situation is expected to worsen in the coming decade despite significant efforts by the Ministry of Health and other agencies. Although the number of nurses has increased in recent years (5.57 per 1,000 people), it remains far below the OECD average of 9.5. The shortage of general hospital

beds (1.76 per 1,000 people compared to 3.18 in the OECD) and psychiatric beds (0.37 compared to 0.70), together with long waiting times for specialist care — especially in critical areas such as neurology and endocrinology (around 50 days) — illustrate a system operating at the limits of its capacity.

The system now stands at a critical crossroads. The paradox of high life expectancy alongside low investment cannot persist. Israel's healthcare system requires substantial and sustained public investment — in the medical workforce (continued expansion of domestic training and increased job positions), in healthcare infrastructure with an emphasis on mental health, public health, and rehabilitation (areas that have been neglected for far too long), in hospital beds, medical equipment, and in reducing geographic, social, economic, and sectoral disparities. At the same time, the technological revolution must be harnessed cautiously and wisely: adopting AI tools and digital medicine that can streamline processes, improve diagnosis and treatment, and reduce burdens on medical teams, while ensuring privacy protection, data security, equitable access, and preservation of the central human relationship at the heart of medical care.

This chapter presents an in-depth overview of Israel's healthcare system in 2025, focusing on critical issues such as the workforce, expenditures, service availability, inequality reduction, population health, and the impacts of the war. The report also offers insights into possible pathways for addressing the challenges ahead, to ensure that the healthcare system can continue to serve all residents of Israel at a high level in the decades to come. This year's chapter includes spotlights on the emergence of the nurse practitioner profession and on the measles outbreak, which has thus far claimed the lives of twelve children.

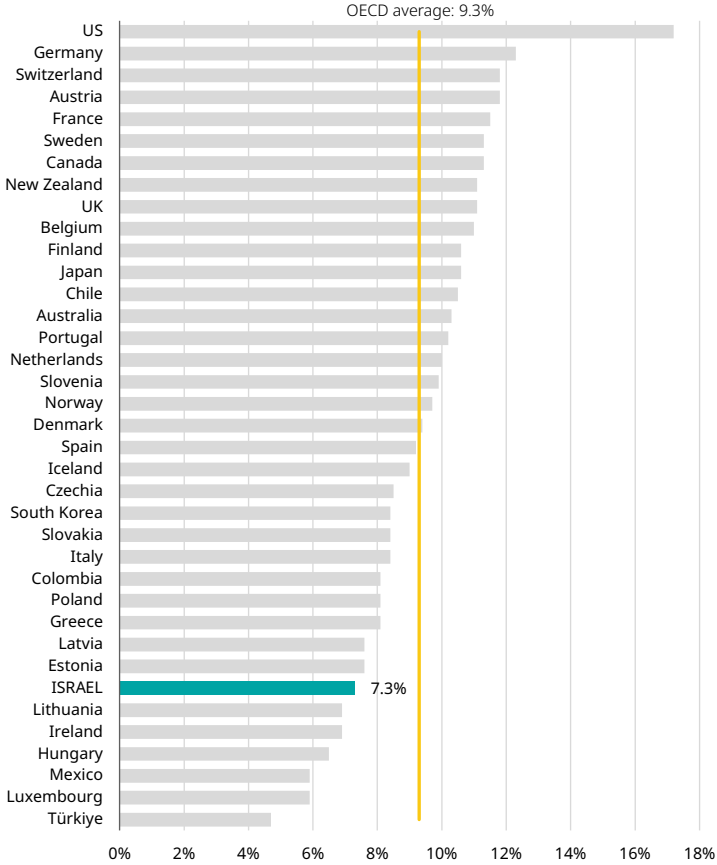
## Healthcare expenditure

In 2024, national healthcare expenditure in current prices totaled NIS 146 billion, an amount equal to 7.3% of GDP. Compared with 2023, this expenditure rose by 1.7% in constant prices, and per capita expenditure in constant prices increased by 0.37%. National healthcare expenditure as a share of GDP in 2024 was lower than in most OECD countries (Figure 1). Current per capita expenditure in purchasing power parity terms was also lower than in most OECD countries, standing at USD 3,941. Private expenditure accounted for 33.7% of national healthcare spending, government funding for 41.9%, and

the health tax for 23%. The remaining 1.4% came from foreign donations. The private and public shares of expenditure as a percentage of GDP remained stable compared with 2023, at 2.5% and 4.7%, respectively (CBS, 2025).

During the 2024 budget discussions, a proposal was introduced to increase the health tax in a differentiated manner, a change that would take effect in 2026. This increase was presented in the context of the decision to expand investment in mental healthcare — including expanding services, emphasizing the public system, and improving infrastructure and training — although in practice, the additional revenues will likely not be used directly for these purposes (Bin Nun et al., 2025). After many years in which mental healthcare suffered from neglect, it has recently received greater attention, including a budget-backed reform. However, despite the substantial health needs that have emerged due to the war — particularly in mental health — national expenditure, and especially its public component, continues to lag behind. Although we are after a two year war, the continuation of this situation erodes the healthcare system across all of its components: from funding for the benefits package and coping with population aging, including the long-standing crisis in long-term care insurance, to issues such as strengthening public health, building new hospitals, and increasing the number of beds at an appropriate pace, especially in the periphery (Davidovitch et al., 2025; Kaidar et al., 2024).

**Figure 1. National expenditure on healthcare as a percent of GDP**



Source: Nadav Davidovitch, Natan Lev, and Ofir Gonen, Taub Center | Data: CBS

## The workforce

The quality and availability of the healthcare workforce are central factors shaping the state of healthcare services. In recent decades, and particularly in recent years, healthcare systems worldwide — and in Israel — have been contending with a rapid aging of the population and with an increase in the prevalence and complexity of chronic diseases (Ministry of Health, 2025a). More patients are living longer with multiple, complex conditions that require intensive diagnosis, treatment, and follow-up. This challenge is further compounded by a parallel trend: the aging and retirement of healthcare professionals and training levels that do not meet the system's needs (Nathanson et al., 2020; Segal et al., 2024).

Israel's healthcare system has been in a prolonged human resource crisis, despite more than two decades of discussions and policy initiatives to address it, including through Taub Center conferences and publications. The causes of the crisis resemble those seen in other healthcare systems worldwide, but Israel faces an additional challenge due to its historical reliance on graduates of overseas medical schools — some of which did not meet the training quality standards established by the Ministry of Health. To discontinue licensing graduates of these non-recognized institutions, whose training quality was deemed inadequate, and to improve the quality of medical care in Israel, the Ministry launched the Yatziv Reform. However, according to the Ministry's assessment, this reform is expected to exacerbate Israel's already low physician-to-population ratio temporarily until 2034. Even once the number of licensed physicians rises thanks to the gradual expansion of medical school slots in Israel, the gap in physicians per capita is not expected to close.<sup>2</sup>

The ongoing workforce crisis makes it difficult for the healthcare system to address existing gaps in service availability and accessibility and the disparities in population health. As part of the effort to respond to these challenges, strategic workforce planning, especially for the medical profession, has been high on the agenda of the Ministry of Health and policy makers for many years. As described in previous publications, this focus has intensified in recent

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2 See the Ministry of Health website, [New Physicians and Ministry Policy, Summary 2024](#).

years, with the establishment of various committees<sup>3</sup> and the publication of the OECD's 2023 report on optimal policies for medical workforce planning in Israel.

A new committee — the Committee for Addressing the Medical Workforce Crisis in the Healthcare System — now operates under the leadership of the Ministry of Health's Director General, Moshe Bar Siman Tov.<sup>4</sup> The committee is working to define mechanisms for meeting targets to increase the number of locally trained physicians, to establish a national body for medical workforce planning, to expand and regulate clinical training placements for medical students and create an efficient national mechanism to manage them (as shown in Figure 2, the allocation of hospital beds per medical student varies greatly across medical schools), and to significantly expand clinical training opportunities in community settings rather than only in hospitals — both for medical students and for specialties beyond family medicine. All of these steps require far-reaching changes and the cooperation of hospitals, health plans, universities (especially medical schools), the Council for Higher Education (CHE), the Planning and Budgeting Committee (PBC), the Scientific Council of the Israel Medical Association, and the Ministry of Finance.

At the end of October 2025, the Ministry of Health launched a new model that includes several key components: unified economic management for payment for clinical training slots; the establishment of training standards; centralized assignment of students to clinical sites; expansion of community-based training; exploration of afternoon training hours; the establishment of teaching authorities in hospitals; and incentives for training institutions to meet targets, strengthen medical education, and support clinical tutors (specialist physicians who supervise student groups during clinical rotations) (Brenner-Shalem et al., 2025). Since this model will influence the system only in the long term, the Ministry of Health, along with other relevant ministries — such as the Ministry of Aliyah and Integration and the Ministry of Finance — and various organizations, is also working on obtaining better information on Israelis studying medicine

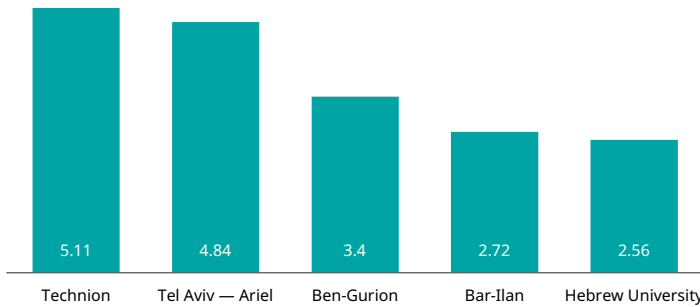
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3 For example, the Council for Higher Education committee chaired by Prof. Rafael Beyar (2022), which recommended expanding the capacity for medical students in clinical training sites and the Gamzu Committee (2022) for long-term medical workforce planning.

4 See the Ministry of Health website, [The Ministry of Health Establishes a Committee to Address the Shortage of Health Workforce in the Healthcare System](#).

abroad, to strengthen ties with them, and to ensure their return to Israel. In parallel with physician training, important steps are being taken to expand the workforce in other health professions, to regulate health professions not previously recognized in the law, and to promote professional development across the healthcare workforce.

**Figure 2. Number of hospital beds per medical student in Israeli university medical schools, 2022**



Notes: The figure relates only to major departments — internal medicine, surgery, and pediatrics. Tel Aviv University allocates beds for Ariel University.

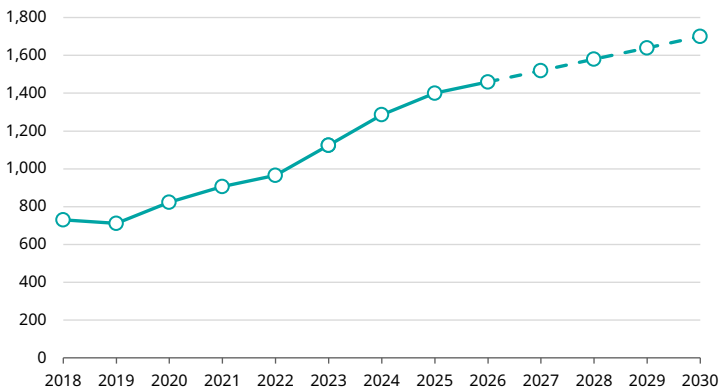
Source: Nadav Davidovitch, Natan Lev, and Ofir Gonen, Taub Center | Data: Ministry of Health

The number of newly issued medical licenses continues the upward trend of recent years, with 2,495 new licenses granted in 2023 compared with 1,947 in 2022. Of these, 750 (30%) were issued to graduates of Israeli medical programs — a figure that reflects both an increase in the absolute number of licenses granted to Israeli-trained graduates and a decrease in their share of all licenses (672 licenses and 35%, respectively, in 2022). In contrast, both the number and share of licenses issued to students who studied abroad continue to rise, with the highest share (54%) going to students trained in Eastern European countries (Ministry of Health, 2024a). The increase in the number of licenses granted to graduates of Israeli medical programs stems from several measures implemented in recent years, including expanding the

number of students in Israeli medical programs and converting training tracks designed for foreign students into programs for local students. These steps are welcome, but they are still insufficient to ensure the training of a satisfactory number of medical professionals within Israel.

Despite the increase in the number of students beginning medical studies in Israel, it will take time before this growth is reflected in the number of new licenses. In the 2025–2026 academic year, approximately 1,400 new students began medical studies at various Israeli universities — a record high, following gradual increases in recent years (in 2018 the number was only 731). These figures align with the Ministry of Health’s goals to substantially expand medical training in Israel, including the establishment of new medical schools (at the University of Haifa, Reichman University, and the Weizmann Institute) and the expansion of existing programs. The Ministry’s targets for the coming years are to continue increasing the number of new medical students each year to 1,700 by 2030. The rise in the number of students is shown in Figure 3.

**Figure 3. Number of students beginning medical studies in Israel, 2018–2025, projections to 2030**



Note: Data from 2026 are based on projections.

Source: Nadav Davidovitch, Natan Lev, and Ofir Gonen, Taub Center | Data: CBS

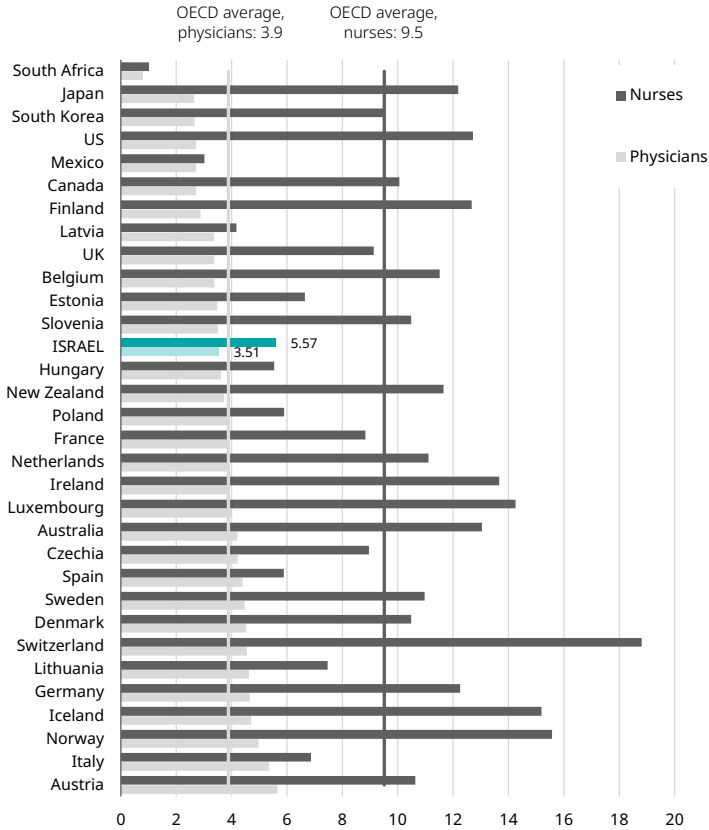
The short-term shortage — especially following the Yatziv Reform — is reflected, for example, in the fact that the number of medical school graduates in Israel in 2023 (7.2 per 100,000 people) remains well below the OECD average of 14.5 (OECD, 2023a). As shown in Figure 4, the number of active physicians in Israel is also lower than the OECD average — 3.5 compared with 3.9 per 1,000 population, respectively, in 2023 (OECD, 2023b). The number of specialist physicians up to age 67 has been rising steadily over the past five years, reaching 1.88 specialists per 1,000 people at the end of 2023. At that time, 21.8% of specialists were internists and 14.7% were specialist family physicians. The number of physicians in residency is also increasing: in 2023, 2,035 physicians began residency — a 54% increase compared with 2015 (Ministry of Health, 2024a). Over the past decade, certain specialties have seen substantial growth in the number of specialists, most notably pain medicine (ten-fold) and emergency medicine (two-and-a-half times), while in other fields — such as public health and psychiatry — the numbers have been declining (Ministry of Health, 2024a). Despite these encouraging increases in the numbers of specialists and residents, significant shortages persist, especially in specialties classified as being in severe shortage,<sup>5</sup> leading to heavy burdens both in hospitals and in community care.

The number of newly issued licenses in the nursing professions has also risen over the past decade, with 4,102 licenses granted in 2023 compared with 929 in 2010. The number of nurses per 1,000 population is likewise increasing, and the rate of licensed nurses up to age 67 reached 6.8 at the end of 2023, compared with 6.6 in 2022 (Ministry of Health, 2024a). One of the main contributors to this increase is the growth in the number of graduates of nursing programs in Israel, which stood at 32.1 per 100,000 population in 2023 — a figure still lower than the OECD average of 45.8. The number of active nurses in Israel in 2023 was also below the OECD average — 5.57 compared with 9.5 per 1,000 population, respectively (OECD, 2023c), as shown in Figure 4.

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5 Internal medicine, anesthesiology, general surgery, geriatrics, emergency medicine, physical medicine and rehabilitation, child and adolescent psychiatry, pathology, general intensive care, vascular surgery, neonatology, pediatric surgery, nuclear medicine, pediatric hemato-oncology, and pediatric intensive care.

**Figure 4. Number of physicians and nurses per 1,000 population, 2023 or the most current year**



Note: The figure for nurses in the United States includes practitioners who are not clinically active (management roles, etc.).

Source: Nadav Davidovitch, Natan Lev, and Ofir Gonen, Taub Center | Data: OECD

A trend that greatly contributes to the development of the nursing workforce is the number of nurses completing advanced courses or clinical specialties. These nurses receive expanded clinical authority and thereby help the system cope with patient overload. At the end of 2023, there were 693 nurses with clinical specialties and 28,655 graduates of advanced programs (47% of all licensed nurses). Although the number of such nurses has been increasing,

the number of new authorizations for advanced programs has declined in recent years: in 2022, there were 2,070 newly authorized graduates compared with more than 3,000 in 2020 (Ministry of Health, 2024a).

## SPOTLIGHT

# Advanced and Specialist Nursing Roles in Israel

Eithan Brodsky and Nadav Davidovitch

### Background

A central component in redesigning the healthcare system and physicians' work is the shift from the traditional model — where a single physician holds sole responsibility for patient care — to a team-based approach in which responsibility and authority are shared among team members. In this model, physicians collaborate with nurse practitioners and physician assistants, with each professional contributing the skills and expertise in which they have a comparative advantage (Segal et al., 2024; Sguanci et al., 2025). Adopting this new operational paradigm in clinical medicine has the potential to significantly improve the quality and efficiency of care while helping the system cope with heavy workloads. This transition frees valuable physician time and enables the expansion of medical services both in in-person care and in telemedicine (Segal et al., 2024).

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Replacing the old paradigm — where the physician functioned as a sole provider who occasionally relied on other professionals — with a new one, in which the physician remains central but not exclusive within a team of peers, has been shown to improve equity and access to care (Nozu et al., 2024; Sguanci et al., 2025; Song et al., 2025). The primary goal of this section is to present the role of nurse practitioners (a spotlight on physician assistants appeared in the *State of the Nation Report 2023*, see Davidovitch et al., 2023, pp. 307–309).

## Definitions around the world

Advanced and specialist nursing roles have existed for decades in North America and Oceania and, in recent years, have been adopted in most European countries, as well as in China and East Asia (De Raeve et al., 2024; Nissanholtz-Gannot & Cohen, 2023; Song et al., 2025). Countries differ in both the titles they assign to these roles and the scope of professional authority and independence they grant. In some countries, these roles form a single, homogeneous group with uniform responsibilities; in others, they consist of several subgroups that differ in their fields of practice, professional identity, and their positioning relative to the medical profession.

Healthcare systems also vary in the baseline requirements for a registered nurse to become a nurse in an advanced specialty role (De Raeve et al., 2024; Nozu et al., 2024). In the absence of an international consensus regarding their scope of practice, the specific skills, competencies, and training associated with these roles are shaped by the national and local context in which they operate (ICN, 2020). Over time, as nurse practitioners have become an increasingly established and recognized professional group, a standard has emerged describing them as practitioners with advanced expert knowledge, complex decision-making

abilities, and the clinical competencies required for a wide range of nursing activities (ICN, 2020). In most countries, nurse practitioners are required to hold advanced academic degrees (master's level or above) and have substantial professional experience related to diagnosing and treating defined health conditions within their specialty areas (Ministry of Health, 2024d; Nathanson et al., 2020).

While role definitions and entry requirements are at various stages of development and implementation across countries, there is broad agreement that when roles and authorities are clearly defined — including lines of supervision under physicians — nurse practitioners contribute positively to healthcare systems. Their contributions are evident in expanded access to care, improved management of emergencies and chronic conditions that require coordination and continuity of care, better clinical outcomes, enhanced patient-centered care, and reduced health disparities (Mackavey et al., 2025; Nozu et al., 2024; Porter et al., 2024; Segal et al., 2024; Sguanci et al., 2025; Song et al., 2025). Their professional training enables them to perform tasks that were once exclusive to physicians, such as assisting with patient admissions and discharges, ordering imaging tests, and prescribing medications. In recent years, the Israeli Ministry of Health has gradually expanded nurses' authorities and established new advanced nursing roles (Carmeli, 2021). The process is advancing, though not without challenges — primarily due to tensions between the Ministry of Health and the Israel Medical Association regarding the supervision structure for nurse practitioners. Following a labor dispute and extensive discussions, an agreement was ultimately reached concerning community nurse practitioners, with an emphasis on maintaining physician oversight.<sup>6</sup>

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6 See the Ministry of Health website, [Community Nurse Practitioners](#).

## The profession's development in Israel

The first step in expanding nursing authority in Israel was the transfer of 61 exceptional procedures into the routine scope of practice for nurses; since then, many additional procedures have been delegated into the routine scope of practice for nurses. Since then, many additional procedures have been delegated to them, including the authority to decide on physical restraint of a patient, refer a patient for chest or skeletal imaging, initiate and discontinue oxygen therapy for adult inpatients, administer glucagon in life-threatening situations, and treat pressure ulcers with dressings and ointments.

In the next stage of the authority expansion process, the Ministry of Health promoted the integration of the nurse practitioner role across both community-based settings and defined hospital-based roles (Ministry of Health, 2024d). To this end, a dedicated track was established that allows experienced nurses with advanced academic training and appropriate preparation to specialize in designated advanced practice nursing fields. Training programs for nurse practitioners in Israel began in 2009–2010 (Nissanholtz-Gannot & Cohen, 2023). Several years later, the title “nurse practitioner” received formal legal and administrative recognition,<sup>7</sup> including the formalization of training procedures, licensing, and professional supervision by the medical director of the unit in which they work.

In 2023, another significant step was taken with an amendment to the Pharmacists Ordinance, enabling nurse practitioners to issue prescriptions for their patients in accordance with their specialty areas (Ministry of Health, 2024d; Nissanholtz-Gannot & Cohen, 2023). In a 2024 publication, the Ministry of Health outlined the core activities of nurse practitioners, based on

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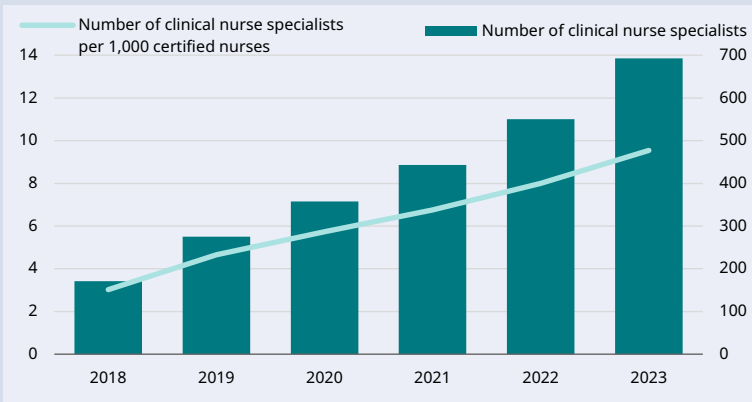
7 Public Health Regulations (Approval of the Nurse Specialist Degree), 2013.

authorities approved by the Director General. Their scope of practice is broader than that of a standard registered nurse. With authorization from the medical unit director or supervising physician, nurse practitioners may conduct clinical assessments, manage and stabilize chronic conditions to support daily functioning and quality of life, and provide counseling, guidance, and education to patients, families, and healthcare staff. They work to detect clinical deterioration as early as possible, refer patients for diagnostic work-ups, interventions, and follow-up, and develop treatment plans, including clinical and pharmacological instructions (Ministry of Health, 2024d). Their expanded training requirements reflect responsibilities beyond those of non-specialized registered nurses: at least one academic year in an approved advanced practice nursing program, a minimum of 400 hours of practical clinical training in the specialty area, and successful completion of a national licensing examination (Ministry of Health, 2024d; Nathanson et al., 2020).

The first specialty track to gain formal recognition in Israel was palliative care. Since then, additional specialty areas have been added, including geriatrics, oncology and hematology, diabetes, community care, neonatology, surgery, policy and administration, pain management, and rehabilitation (Nissanholtz-Gannot & Cohen, 2023; Segal et al., 2024). As of 2025, 18 specialty areas are active, and several more are under development (Knesset Health Committee, 2025). Nurse practitioners are key figures in ensuring the quality, continuity, and safety of care (Mackavey et al., 2025; Nissanholtz-Gannot & Cohen, 2023; Segal et al., 2024). Their integration improves resource utilization and frees physician time for the populations that need it most. In this way, the effective clinical time of physicians is preserved, while the overall quality of care improves (Segal et al., 2024). Expanding specialty areas and increasing the number of clinical nurse practitioners (Figure 5) creates an opportunity to strengthen the nursing

profession itself, enhancing its autonomy and fostering a distinct professional identity. Professional development pathways, expanded career horizons, and opportunities for empowerment and personal fulfillment also help reduce burnout and ensure a broader impact of nurses on the healthcare system and its ability to confront challenges and crises (Nissanholtz-Gannot & Cohen, 2023; Porat-Dahlerbruch et al., 2025b).

**Figure 5. Clinical nurse specialists**



Source: Nadav Davidovitch, Natan Lev, and Ofir Gonen, Taub Center | Data: Ministry of Health

## Challenges and opportunities

Integrating the new role of nurse practitioners into the healthcare system is a complex, long-term, and dynamic process that requires substantial resource investment and cooperation from all stakeholders (Nissanholtz-Gannot & Cohen, 2023; Porat-Dahlerbruch et al., 2025b). Various voices — particularly within

the medical community and especially from medical associations and the Israeli Medical Association — have expressed concerns about ambiguity in role definitions and in the boundaries of the authority granted to nurse practitioners (Carmeli, 2021; Nof Sadeh et al., 2018), criticism regarding a mismatch between the scope and content of the training and the expanded authority, and concern that full professional autonomy might distance nurse practitioners from team-based care, contrary to the role's original intent (Nof Sadeh et al., 2018). Segal et al. (2024), who support the advancement and integration of the nurse practitioner role, note that physicians' support depends on nurse practitioners being an integral part of the care team alongside physicians and physician assistants, and on clearly defined and mutually agreed-upon role boundaries. Concerns can be mitigated through sustained collaboration between physicians and nurse practitioners, greater exposure to the certification process, and increased familiarity with the benefits of the role in improving care quality. Researchers recommend fostering open inter-professional dialogue and building trust between the medical establishment and nurse practitioners through joint professional forums and meetings. Healthcare organizations seeking to introduce the nurse practitioner role must promote cultural-organizational change that challenges traditional ideologies. At the same time, regulators will need to adjust policy — particularly legislation, oversight, financing, and staffing allocation. Such change requires close cooperation and commitment from professional and managerial leadership within the Ministry of Health and healthcare organizations, along with goodwill and partnership from the relevant professional associations (Porat-Dahlerbruch et al., 2025a; Segal et al., 2024).

The transplantation of the nurse practitioner model from Western countries into Israel is hindered by staffing gaps in Israel's nursing workforce. Current staffing formulas were

established in the late 1990s and no longer match the system's contemporary dynamism and challenges, including population aging and rising morbidity (Knesset Health Committee, 2025). In a system without sufficient baseline nursing positions, allocating dedicated posts for nurse practitioners presents a particular challenge. The number of designated positions remains low, despite broad agreement that adding such positions could reduce the need for physician posts and help alleviate physician workload (Nissanholtz-Gannot & Cohen, 2023). In practice, nurse practitioners are currently employed either in standard nursing positions or in temporary posts. This situation may result in nurse practitioners performing the same duties they carried out before obtaining their advanced certification, without formal recognition or corresponding authority. This undermines their motivation and limits institutions' ability to fully benefit from their advanced knowledge and skills. The lack of dedicated positions delays the system's ability to address precisely the clinical workload that the nurse practitioner role was created to alleviate (Knesset Health Committee, 2025).

There is now agreement within the Ministry of Health and the Ministry of Finance on the need for appropriate staffing frameworks, and a multi-year plan for gradual allocation of dedicated positions is in place. Due to the security and economic situation, fewer than half of the planned positions have actually been allocated, creating a gap between the number of trained nurse practitioners ready to work and the number of positions available to employ them (Knesset Health Committee, 2025). Even once the budgetary gap is addressed, additional steps will be required to ensure that the nurse practitioner role continues to be perceived by nurses as attractive and rewarding. These steps include improving compensation conditions and creating clearly defined career pathways and advancement opportunities (Nissanholtz-Gannot & Cohen, 2023).

## Recommendations for the future

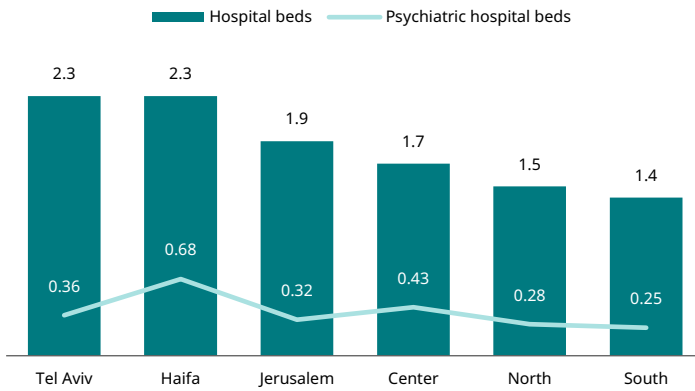
Population aging, the rise in chronic disease, and challenges posed by infectious diseases — such as antimicrobial resistance — or by climate change, all require out-of-the-box thinking and far-reaching system reforms, including a redesign of the care-delivery model. Present and future challenges demand the adoption and integration of a model of care based on partnership and team-based practice among physicians, physician assistants, and nurse practitioners (Segal et al., 2024). Continued, gradual, and well-planned implementation of the nurse practitioner role — together with appropriate allocation of dedicated positions and improved compensation for these nurses — will help increase their numbers. Clear delineation of their authority and responsibilities, combined with open communication with physicians and with the leadership of healthcare organizations, are key steps toward reducing resistance to the expansion of their scope of practice and to the evolving professional status of nursing.

## General hospital beds

Despite the increase in the absolute number of general hospital beds (excluding psychiatric beds) — from 15,497 in 2015 to 16,948 in 2023 — the number of beds per 1,000 population in Israel continues to decline, from 1.85 in 2015 to 1.76 in 2023. This figure is lower than the OECD average, which in 2023 stood at 3.18 beds per 1,000 population (OECD, 2023d). The number of psychiatric beds per 1,000 population is also in a continued downward trend: in 2023, it stood at 0.37 beds per 1,000, below the OECD average of 0.7 in that year (OECD, 2023d).

Examining the geographic distribution of general hospital beds reveals imbalances across districts (Figure 6). Periphery districts are characterized by a relatively low number of beds per 1,000 population; however, in these districts the bed rate has remained relatively stable, whereas in the rest of the districts it has eroded over time (Ministry of Health, 2025a). The geographic distribution of psychiatric beds is similarly uneven. In the Northern and Tel Aviv Districts the number of beds has remained relatively stable, while in the other districts the number of beds has declined over the years (Ministry of Health, 2025a).

**Figure 6. Hospital beds per 1,000 population, by district, 2023**



Source: Nadav Davidovitch, Natan Lev, and Ofir Gonen, Taub Center | Data: Ministry of Health

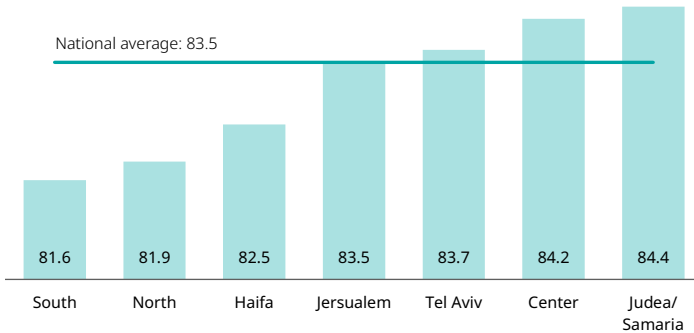
## Addressing health disparities

For two decades, the Ministry of Health has been working — together with partners within and outside the healthcare system — to reduce disparities in the availability and accessibility of healthcare services across population groups and to narrow health gaps reflected in health indicators. The Ministry's approach considers not only the healthcare system but also other systems such as education, welfare, employment, and the environment. One major reform advanced in recent years is the reform of the medical workforce, aimed at reducing disparities in the availability of medical personnel between the periphery and the center.

Life expectancy gaps at birth between the Arab and Jewish populations remain pronounced. In 2023, life expectancy in the Arab population was 80.7 years compared to 84.3 in the Jewish population (excluding war casualties). The gaps between men are larger than those between women: among men, the disparity continues to widen, while among women, it is gradually shrinking. Life expectancy among Arab men was the most severely affected during the COVID-19 pandemic and has only now returned to its pre-pandemic level, whereas life expectancy among the other groups (Jewish men and both groups of women) is substantially higher than it was before COVID-19 (Ministry of Health, 2025a). Significant disparities exist in mortality and infant mortality as well. In 2023, the mortality rate among Jews and others was 4.1 per 1,000 population (excluding war casualties), compared with 5.1 in the Arab population. Infant mortality per 1,000 live births was 1.9 among Jews and others, compared with 5.2 in the Arab population, and double that in the Bedouin population. Despite these substantial gaps, both populations have seen declining infant mortality rates over the past decade (Ministry of Health, 2025a).

In addition to disparities between population groups, there are marked geographic disparities in life expectancy and mortality. In 2021–2023, average life expectancy was highest in the Judea and Samaria District (84.4), while the Northern and Southern Districts had the lowest life expectancy (Figure 7). The Southern District also stands out negatively in infant mortality among the Arab population, with 9.2 deaths per 1,000 live births compared with the national Arab population average of 5.2 (Ministry of Health, 2025a).

**Figure 7. Life expectancy at birth, by district, 2021–2023 average**



Source: Nadav Davidovitch, Natan Lev, and Ofir Gonen, Taub Center | Data: Ministry of Health

Given the growing demand for healthcare services — a trend reinforced by demographic growth — an extensive effort has been undertaken as part of the National Health Infrastructure Planning Program to forecast future demand and design a distribution of services that matches demographic expansion. As part of the program, an attempt was made to project population growth through 2030 by locality and age group, and to plan optimal infrastructure distribution for dialysis, pharmacies, and oncology services (Ministry of Health, 2025a). Another area currently under in-depth review is hospital-at-home services as an alternative to acute hospitalization, based on criteria set by the Ministry of Health. An analysis of hospital-at-home admissions showed that the introduction of a support-payment mechanism for the health plans in 2020 significantly increased the number of such hospitalizations. Most referrals (87%) came from the community rather than from hospitals, although, in the past year, hospitals have also begun to enter the field, initiating referrals for both adults and children. It is important to note that hospital-at-home services may widen disparities between populations: according to Ministry of Health data, the growth in hospital-at-home rates in the central region is faster than in the periphery (Schroeder et al., 2023).

The distribution of preventive health infrastructure is critical for reducing health disparities. The Tipat Halav network is a notable example of essential health infrastructure that serves as a key point for identifying and preventing health problems early in life and for supporting healthy development throughout the lifespan. The geographic distribution of clinics, examined in the National Health Infrastructure Planning Program, shows a generally positive picture in terms of service accessibility. In May 2024, Israel had 806 active clinics, and 92% of the population lived within walking distance of a Tipat Halav clinic (Ministry of Health, 2025a). However, as we reported in our policy paper on Tipat Halav (Davidovitch et al., 2025), severe staffing shortages and insufficient adaptation to demographic growth prevent the clinics from fulfilling their objectives.

In the field of rehabilitation, most services are provided in hospitals, though some are delivered in dedicated ambulatory centers. An analysis conducted as part of the National Health Infrastructure Planning Program showed that the central region has a large number of rehabilitation infrastructures — including day centers, hospitals, and clinics — while the periphery has almost none (Ministry of Health, 2025a).

Another field with significant gaps is cancer care. The increasing number of new cancer diagnoses each year, the long and complex treatments that patients undergo, and the resulting burden on the healthcare system emphasize the importance of appropriate distribution of oncology services. Today, most oncology care is delivered in specialized departments within general hospitals, creating challenges for patients who often must travel long distances for treatment. An analysis performed under the National Health Infrastructure Planning Program found that eight hospitals delivered 80% of infusion treatments. Moreover, an examination of travel distance from patients' residence to treatment centers showed that 39% of patients living in the Southern District travel far from home for treatment, compared with 18% in the Haifa District and 12% in the Northern District (Ministry of Health, 2025a).

As part of the systemic program to improve health in the Arab population, the Ministry published a support mechanism for health plans aimed at expanding services for Arab communities. A support mechanism was also issued for civil society organizations for prevention programs and health promotion, and 24 health units were established in Arab and Bedouin local authorities. In the health program to reduce disparities in the Haredi population,

many initiatives were advanced, including the operation of a mobile Tipat Halav clinic in neighborhoods with low vaccination coverage, dissemination of information on dental health, nutrition education programs for children, lifestyle workshops for students and teachers, and preparatory courses for training personnel in health professions (Ministry of Health, 2025a). A key component of these efforts is increasing the representation of health workers within the healthcare system — an ongoing process over the past decade, particularly among decision makers. Still, many barriers at the individual, community, and systemic levels require comprehensive attention (Dopelt et al., 2024). The Ministry of Health and various organizations, such as Sikkuy and the Abraham Initiatives, are promoting processes in partnership with many agents to address health needs in the Arab population (Shuster & Della, 2023). Among the Haredi population, health professionals are also organizing to promote change (Regev & Miletzky, 2024).

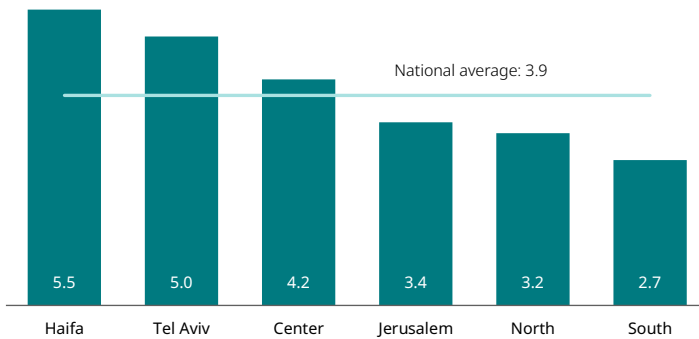
Another major initiative the ministry continues to promote is reducing inequity through the establishment of health units within regional clusters and by strengthening health promotion in local authorities. A regional cluster is an association of local authorities aimed at advancing regional development and achieving shared goals through pooled resources. In 2020, a call for proposals was issued to promote health and healthy-aging in seven clusters, funding the establishment of health units and the recruitment of regional health coordinators. The initiative was later expanded to all 12 clusters. The health units operate along five central axes: (1) establishing multisectoral partnerships for health promotion; (2) collecting and analyzing residents' health data; (3) engaging local authorities and community actors in health investment; (4) leveraging the scale advantages of the cluster to reduce costs and implement joint initiatives; and (5) establishing a regional infrastructure to improve access to healthcare services and promote health. By the end of 2023, 111 local authorities were participating in the initiative, which is estimated to reach approximately 3.2 million residents (Ministry of Health, 2025a).

## Availability and quality of healthcare services

The availability and quality of healthcare services are strongly influenced by inequities in the geographic distribution of the healthcare workforce. Examining the number of healthcare professionals across regions makes it possible to compare areas of the country and identify workforce disparities that affect healthcare delivery.

In 2021–2023, the average number of employed physicians per 1,000 residents was higher than the national average in the Haifa, Tel Aviv, and Central Districts, while in the Southern, Northern, and Jerusalem Districts it was lower (Figure 8). The average number of employed nurses per 1,000 residents during these years was also above the national average (5.4) in the Tel Aviv (7.7) and Haifa (6.9) Districts, and below it in the South (4.5), Jerusalem (4.8), Central (4.9), and Northern (5.2) Districts. Other health professions also exhibit substantial regional disparities (Ministry of Health, 2025a). This picture highlights the workforce gaps between geographic areas — particularly between periphery regions and the center — and underscores the need for strategic workforce planning that can address this challenge.

**Figure 8. Number of physicians per 1,000 population, by district, 2021–2023**

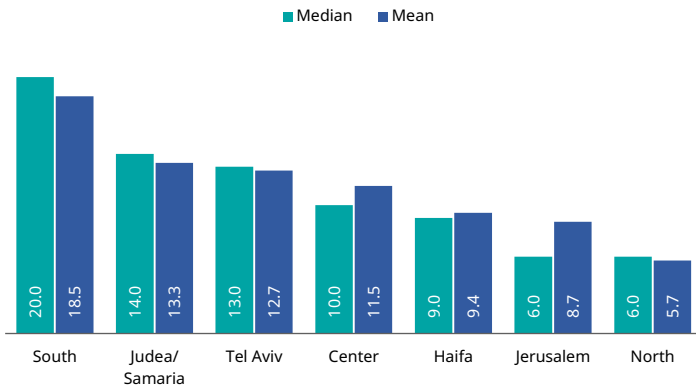


Source: Nadav Davidovitch, Natan Lev, and Ofir Gonen, Taub Center | Data: Ministry of Health

Shortages in the healthcare workforce and its unequal geographic distribution are also reflected in waiting times for specialist care in the community. Figure 9 presents the waiting time (in days) to see any physician in a given geographic area, as measured by the Ministry of Health's National Program for Measuring Waiting Times in Healthcare between April and June 2025. The figure shows that substantial disparities persist, with the Southern District exhibiting the longest waiting times.

**Figure 9. Waiting time for a physician (median and mean), by district, April–June 2025**

Days



Source: Nadav Davidovitch, Natan Lev, and Ofir Gonen, Taub Center | Data: Ministry of Health

Another area that reflects the quality of healthcare services is performance on quality indicators. As part of the National Quality Indicators Program for Community Healthcare, several measures are used to assess the utilization of preventive screening tests offered by the health plans. Among these are two simple yet critically important tests for health promotion: BMI measurement and smoking documentation. These assessments help identify patients at elevated risk due to lifestyle factors and enable early intervention to prevent morbidity. The rate of BMI measurement among adults aged 20–64 and children aged 7 has been declining since 2019; in 2023, the documentation rates in these age groups were 82.4% and 66.6%, respectively. Among adolescents aged 14–15,

there was a slight increase in completion rates, from 69.3% in 2022 to 70.4% in 2023, while the rate for adults aged 65 and older remained stable at 72.9%. The rate of smoking documentation among individuals aged 16–74 also continued its downward trend, from 79.7% in 2022 to 79% in 2023. The decline in these preventive care measures signals a persistent pattern of underutilization of health promotion services and calls for a strategic response by the healthcare system and the health plans to reverse this trend (Ministry of Health, 2024c).

## Reform of patient choice arrangements

In February 2024, the reform of patient choice arrangements vis-à-vis the healthcare plans came into effect. The goal of the reform was to expand the range of services available to insured individuals, improve access to large hospitals, and enhance the availability and transparency of information on service providers. These changes were intended to help shorten waiting times in the healthcare system and strengthen trust in the public system. The reform stipulated four areas exempt from any choice limitations — gynecological surgery, neurosurgery, inpatient mental health care, and IVF — allowing every patient to choose treatment at any medical center offering the relevant service. In addition, Meuhedet and Clalit healthcare funds were required to add several hospitals to their lists of available providers, and all information regarding choice options must now be accessible to patients both physically and digitally. Following the reform, improvements were indeed recorded in travel distance to hospitals among Clalit and Meuhedet healthcare fund members. The largest improvement was observed among Clalit members living in the periphery, who prior to the reform had to travel approximately 11.3 km more than Maccabi healthcare fund members but afterward only 1.6 km more (Ministry of Health, 2024b). In 2025, the average number of hospitals (including tertiary centers and private hospitals) offered by each healthcare plan to an insured person (adjusted for age and sex) was 21.1 in Leumit, 27 in Maccabi, 9.6 in Clalit, and 23.4 in Meuhedet (Schroeder et al., 2025).

Table 1 details the number of hospitals offered by each health plan, broken down by district. As shown, while Maccabi and Leumit healthcare funds exhibit almost no variation across districts, Clalit and Meuhedet healthcare funds show considerable variation, with the widest range of options available in the Northern District.

**Table 1. Healthcare fund hospitals, by district**

District	Clalit		Maccabi		Meuhedet		Leumit	
	Hospital	Referral center only	Hospital	Referral center only	Hospital	Referral center only	Hospital	Referral center only
North	8.7	2.4	21	6	19.3	5	16.1	5
South	7	2	21	6.4	17.6	5.4	16.3	5
Tel Aviv	6.2	2.6	21	6	17.3	5	16	5.3
Haifa	6.5	2.6	21	6	19	5	16	5
Jerusalem	7.3	4	21	6	18	5	16	5
Center	6.7	2	21	6	17.9	5	16	5
Judea/Samaria	6.8	3.1	21	6	17	5	16	5

Note: Fractional values represent the average number of hospitals per district.

Source: Nadav Davidovitch, Natan Lev, and Ofir Gonen, Taub Center | Data: Ministry of Health

## Health status and lifestyle

Maintaining a healthy lifestyle is essential for reducing the risk of illness and associated complications. Smoking habits, dietary patterns, and levels of physical activity serve as important indicators of existing health risks. In addition, the prevalence of obesity and diabetes are indicators of additional morbidity and of preventable future complications.

For many years, the share of smokers in Israel has been rising across all population groups and both genders. In 2023, 29.3% of men and 13.7% of women smoked. Among men, there is an inverse correlation between socioeconomic status and smoking rates — the lower the socioeconomic ranking, the higher the smoking rate — while among women the pattern is reversed (Ministry of Health, 2024c).

After several years of a rise, 2023 saw a decline in the prevalence of overweight 7-year-olds, reaching 8.1%. Among adolescents aged 14–15, the overweight prevalence is rising, reaching 14.2% among boys and 12.1% among girls in 2023. Among adults aged 20–64, rates continued to increase, with rates of 23.3% for men and 27.1% for women. Among adults aged 65 and older, there is a decline: in 2023, prevalence was 26.7% among men and 35.3% among women. Across all age groups, the lowest overweight rates were found among men and women of higher socioeconomic status (Ministry of Health, 2024c).

The prevalence of diabetes among adults aged 18+ continues to rise, reaching 10.5% in 2023. In the Arab population, it is 1.6 times higher than the rate in the non-Haredi Jewish population<sup>8</sup> and the Haredi population. Geographically, the highest rate was recorded in the Nazareth subdistrict (14.4%) and the lowest in Tel Aviv (7.8%). The lowest prevalence was observed among men and women of the highest socioeconomic status (Ministry of Health, 2024c).

As noted in a Ministry of Health report on health equality in 2023, there are substantial gaps in health behaviors between the Arab population and the average in the overall population (Ministry of Health, 2025a). Smoking rates among Arab men are relatively high: 37.2% of Arab men aged 16–74 smoke, compared with 27.4% on average in the overall population. In contrast, smoking rates among Arab women are lower (5.4% compared with 16.4%). In terms of diet, the Arab population consumes more salty snacks, red and processed meat, and sugary drinks, and lower amounts of fish and vegetables. At the same time, consumption of fruits, whole grains, legumes, and olive oil is higher. Physical activity levels are lower: 34% of Arab adults aged 20+ engage in physical activity, compared with 60% in the Jewish population (Haredi and non-Haredi). With regard to obesity, in 2023, 10.4% of Arab 7-year-olds had obesity compared with 8.1% on average in the overall population, and higher rates were recorded among Arab adolescents and adults as well. Diabetes prevalence is also higher. The rate among those aged 45 and older in the Arab population is higher than the average rate for these ages in the total population: 26.4% versus 18.2%. Prevalence increases sharply with age — 49.5% of Arab adults aged 75+ are affected (Ministry of Health, 2025a). Poor glycemic control, as measured by HbA1c, was 1.7 times more common in the Arab population than on average in the overall population (Ministry of Health, 2024c).

The Haredi population is characterized by a distinctive lifestyle that shapes health behaviors and outcomes (Ministry of Health, 2025a). Dietary patterns include lower per capita consumption of fruits and vegetables and higher levels of sugary drinks, snacks, sweet baked goods, and candy than on average. This is reflected in the disproportionately high share of Haredi children in grades 1 and 7 who are under-height for age — twice the average rate. Only 26% of Haredi adults engage in regular physical activity (compared with 33% among non-Haredi Jews), and only 16% engage in vigorous activity (compared with 31%).

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8 The non-Haredi Jewish population includes the “Other” group (those with no religious classification). Comparisons with the Arab and Haredi populations follow the categorizations used in the original data sources.

Smoking rates among Haredi youth are particularly high: 54% of boys aged 12–18 in yeshiva high schools have tried smoking at least once (80% in dropout-prevention programs), and 11% smoke regularly (37% in dropout-prevention programs). Among students in higher yeshiva (ages 17–24), 77% have tried smoking and 32% are regular smokers (Ministry of Health, 2025a). This pattern reverses in adulthood: overall adult smoking rates in the Haredi population in 2023 were lower than in other population groups (Ministry of Health, 2024c). The Haredi population also has low vaccination coverage, due to logistical barriers, mistrust of the healthcare system, lack of knowledge, and some misinformation. Diabetes prevalence among Haredi adults aged 35–64 is slightly higher than among the Haredi and non-Haredi Jews, but among adults 65+ it is somewhat lower (Ministry of Health, 2025a).

## SPOTLIGHT

# Measles Outbreak in the Post-COVID Era

Efrat Sales, Natan Lev, and Nadav Davidovitch

The COVID-19 pandemic underscored the reality that only a coordinated international effort can prevent future outbreaks. The high level of global mobility in the modern era — marked by extensive travel and movement between countries — combined with climate change and its effects on biological and microbiological systems, creates conditions that require the establishment of global mechanisms for preventing and managing pandemics, as reflected in the World Health Organization's efforts to advance a global health agreement. However, this mode of action has not

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yet been fully internalized in practice, as demonstrated by the recurring waves of COVID-19 and by the resurgence of measles, which has reached Israel as well.

Since 2023, there has been an increase worldwide — including in Israel — in the incidence of vaccine-preventable diseases in general, and measles in particular. The rise in measles incidence in Israel was due to a wide range of factors, chiefly the arrival of ill tourists and visitors, infections among Israelis returning from abroad, and community spread among unvaccinated populations — particularly in parts of the Haredi community. A substantial outbreak occurred in April 2025: within fewer than eight months, there were 730 measles-related hospitalizations, most among children ages 1–4, as well as 12 deaths.<sup>9</sup> Apart from one who had only one vaccine out of two, none of the individuals who died had been vaccinated. The reported case count likely represents only the tip of the iceberg, as many cases — especially mild ones — are not reported.

Measles is one of the most contagious infectious diseases. It is transmitted through the air, primarily via tiny droplets expelled when an infected person coughs or sneezes, as well as through direct contact with respiratory secretions. The infectious period begins four days before the appearance of the rash and lasts until four days afterward.<sup>10</sup>

International health bodies, including the World Health Organization, the U.S. Centers for Disease Control and Prevention (CDC), and the OECD, emphasize that the most effective way to prevent and eliminate measles is through vaccination — which has saved an estimated 60 million children worldwide between 2000 and 2023. The vaccine consists of a live attenuated virus and is administered as part of the combined MMR vaccine (measles,

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9 For an updated status report, see [Tableau Public](#).

10 See the Ministry of Health website, [Measles](#).

mumps, rubella) or the MMRV vaccine, which also provides protection against varicella (chickenpox).<sup>11</sup>

The measles vaccine is highly effective, safe, and rarely associated with severe side effects. Since the virus is extremely contagious, achieving herd immunity requires vaccination coverage exceeding 95% of the population, delivered through two doses — a first dose at one year of age and a second dose in first grade. The MMR vaccine was approved by global regulatory authorities in the 1970s and introduced in Israel in 1988. The MMRV vaccine was approved globally in 2005 and introduced in Israel in 2007. According to the World Health Organization, about 84% of children worldwide are vaccinated with the first dose by age two, and 76% receive the second dose (Jones, 2025). Given the importance of monitoring vaccination rates, in 2015, Israel introduced a new indicator into its national quality measures: “Administration of one dose of MMR/MMRV to infants by 13 months in Family Care Centers.” According to a 2024 report, 66% of children aged 12–13 months met this benchmark (Ministry of Health, 2025b).

Despite consistent recommendations from global health authorities, researchers, and clinicians, the past decade has seen a decline in vaccination rates. This decline is attributed to vaccine hesitancy and refusal, armed conflicts and wars, and disruptions to health systems.

One of the main drivers of reduced vaccination rates in high-income countries — including Europe, the United States, Canada, and Israel — is parental vaccine hesitancy regarding the MMR vaccine. Two systematic reviews examining the psychological, social, and cultural factors shaping parents’ decisions to vaccinate (or not vaccinate) their children found that concerns about vaccine safety were the central reason for avoidance, particularly

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11 See the World Health Organization website, [Measles](#), as well as the CDC website, [Measles Symptoms and Complications](#).

the erroneous myth linking the MMR vaccine to autism. In addition, many parents report a lack of trust in the health system, government authorities, and pharmaceutical companies, driven by perceptions of insufficient transparency or suspected economic and political interests. Another common factor is the perception that measles is not a serious disease and therefore does not require urgent vaccination, especially in countries where it has become rare. Both reviews also highlight the influence of the social and community environment: parents are affected by the attitudes of friends, family, and ideological or religious groups that discourage vaccination. Overall, these findings suggest that hesitancy stems less from absolute opposition to vaccines and more from misinformation, misperceptions of risk, lack of trust, and social influences shaping parental views of vaccination (Novilla et al., 2023; Wilder-Smith & Qureshi, 2020).

In recent months, following the appointment of Robert Kennedy as the US Secretary of Health, his longstanding opposition to routine vaccinations has had tangible public health consequences. Kennedy has repeatedly cast doubt on the safety and effectiveness of routine vaccines in general and of the measles vaccine in particular. He has also promoted research purporting to link the measles vaccine to autism and encouraged the use of questionable remedies in the midst of a major measles outbreak in Texas. Through his actions and public statements, he has significantly undermined public confidence in routine immunization, and despite his short time in office, vaccination rates have already begun to decline (Woolf & Rosenthal, 2025).

Crises such as the COVID-19 pandemic, wars, and armed conflicts also contribute to drops in vaccination coverage. For example, according to World Health Organization data for the European region, the years preceding the COVID-19 pandemic saw a gradual increase in measles vaccination rates. However, during

the pandemic (2020–2021), there was a substantial decline in first-dose coverage — approximately 2.1 percentage points across all countries, with particularly sharp decreases in Eastern European countries such as Romania, Albania, and Moldova (Maugeri et al., 2024). Similarly, wars and armed conflicts have a major impact on vaccination rates. The Russia-Ukraine war that began in 2022 led to a marked decline in measles vaccination coverage. In Ukraine, MMR coverage fell from 88% to 74% or lower. This decline has been attributed to the destruction of medical infrastructure, the cessation of national immunization campaigns, population displacement, and lack of access to basic healthcare services (Badanta et al., 2024; Holt, 2024).

The reasons for declining vaccination rates during crises (pandemics and wars) stem from several key factors: the diversion of health system resources toward emergency response; disruptions in supply chains due to border closures and social distancing; parental reluctance to leave home (due to fear of shelling during wartime or fear of infection during COVID-19); and the widespread dissemination of misinformation on social media and online platforms. In addition, during these crises, health ministries were forced to close Family Care Centers or reassign health personnel to other roles, reducing availability and accessibility of routine preventive services (Badanta et al., 2024; Holt, 2024).

A major factor contributing to declining vaccination rates — both generally and during crises — is lack of trust in the health system and in government institutions. A study conducted in Germany among parents of young children found a strong connection between trust in the health system and government and vaccination decisions. When parents lacked trust in state institutions and healthcare authorities, vaccination rates fell — even for routine childhood vaccines. Parents who felt

that vaccination policies were imposed coercively or non-transparently expressed principled objections and used non-vaccination as a way to preserve their sense of autonomy. Furthermore, knowledge gaps and lack of access to reliable information among lower socioeconomic groups intensified feelings of alienation from the health system and increased skepticism toward vaccination policies. These findings highlight that government mandates alone are insufficient to achieve high vaccination coverage; effective immunization policy depends on trust-building, transparency, participatory communication, and culturally tailored information for all population groups (Neufeind et al., 2022).

This situation has led to a renewed global rise in measles outbreaks, particularly in low- and middle-income countries and in areas with low vaccination coverage. In recent years, recurrent outbreaks have also been observed in upper-middle-income countries.

According to the World Health Organization, in 2023, approximately 320,000 measles cases were reported worldwide — an increase of 1.8 times compared with just 170,000 cases in 2022. Another rise was observed in 2024, reaching roughly 360,000 cases (UNICEF, 2025). Although the number of measles cases in the WHO European Region declined steadily after 1997 — when about 216,000 cases were reported — and reached a low of only 4,440 cases in 2016, a resurgence occurred in 2018 and 2019, with 89,000 and 106,000 reported cases, respectively. Following declines in vaccination coverage during the COVID-19 pandemic, cases rose sharply again in 2023 and 2024. In 2024, roughly one-third of all global measles cases originated in the European Region — about 127,000 cases — double the number reported in 2023 and the highest figure since 1997. More than half of these cases required hospitalization, and 38 deaths were recorded (UNICEF, 2025).

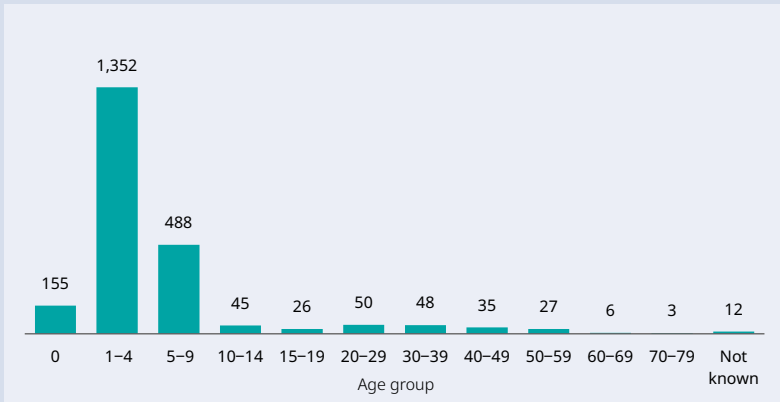
A similar pattern has been observed in the US. Although measles was declared eliminated in the US in 2000, declining vaccination rates in recent years have led to recurring outbreaks. For example, in 2022, about 28% of US parents expressed concerns about vaccine safety, compared with just 16% in 2019. In Texas, childhood vaccination coverage fell to 94.3% in 2023 — below the 95% threshold needed to maintain herd immunity. According to CDC data, in the first quarter of 2025, the United States experienced a steep rise in measles outbreaks, with 607 confirmed cases across multiple states; 97% of those infected were unvaccinated or had unknown vaccination status. The epicenter of the outbreak was Texas, which recorded 481 cases, including 56 hospitalizations and the death of an unvaccinated child. The outbreak spread to neighboring states such as New Mexico (54 cases) and Oklahoma (10 cases) (Kuppalli & Omer, 2025).

Israel has also seen an increase in measles cases in recent years. In 2018–2019, a nationwide outbreak occurred with approximately 4,300 cases reported to the Ministry of Health. High morbidity and disease burden were concentrated primarily in communities with low vaccination rates, most notably the Haredi population. Despite an extensive and effective public health response, the outbreak exposed vulnerable population groups and highlighted gaps and resource shortages within Israel's public healthcare system — both in terms of access to vaccination and in the system's capacity for targeted communication and rapid response in specific communities, such as the Haredi sector (Stein-Zamir & Levine, 2021).

In 2024 — and even more markedly in 2025 — a new measles outbreak emerged. From April 2025 to December 2025, roughly 2,000 measles cases were reported (Figure 10), the majority within the Haredi sector. Since the onset of the outbreak in April 2025, 730 patients were hospitalized, most of them children under 18, and 12 patients died. Importantly, according to Ministry of

Health estimates, actual morbidity since the start of the outbreak is substantially higher than reported and likely ranges between 5,000 and 9,000 cases.<sup>12</sup>

**Figure 10. Number of cases of measles during the measles outbreak, by age group, 2025**



Source: Nadav Davidovitch, Natan Lev, and Ofir Gonen, Taub Center | Data: Ministry of Health

In light of declining vaccination rates and the rise in measles outbreaks worldwide, it is crucial to develop strategies that promote vaccination uptake. A recommended approach is to shift responsibility and empower local actors in designing and implementing immunization programs, recognizing that many gaps in vaccination coverage originate at the regional or community level. Active involvement of local communities and their leadership — combined with improved data quality

12 See DoctorsOnly website, [The Measles Outbreak in Israel Is the Most Tragic in the Western World](#), November 20, 2025.

and strengthened epidemiological surveillance — can help tailor vaccination-promotion strategies to the local demographic, cultural, social, linguistic, and geographic context (Cutts et al., 2021).

Increasing measles vaccination coverage requires the adoption of targeted strategies based on the “Three Cs” framework: convenience, complacency, and confidence. These strategies include improving access to vaccination services through community-based and mobile vaccination units that operate in areas with low coverage and are culturally and linguistically adapted to local populations. In parallel, dedicated catch-up campaigns for completing MMR vaccination are recommended, as well as the use of personalized reminder systems and digital information tools that provide parents with clear and reliable information about vaccine safety. Public trust must be strengthened through transparent communication, consistent messaging from experts and community figures, and open public dialogue during policy design. Ultimately, the success of such interventions depends on allocating dedicated resources, investing in research, and tailoring strategies to local needs, with the goal of rebuilding trust and preventing future measles outbreaks (Thompson et al., 2023).

A situation in which 12 children die from measles — a disease for which there is a safe and effective vaccine — is intolerable. The continued erosion of public health infrastructures is clearly evident here. Israel has, in effect, been pushed back decades in its measles control. These preventable deaths serve as a stark warning and underscore the urgent need to strengthen the public health system, which has been dangerously weakened in recent years.

## Conclusion

As this chapter has shown, many longstanding problems facing Israel's health system remain unresolved. The system is far from static — numerous reforms are underway in areas such as hospital choice arrangements for healthcare fund members, mental health services and the training of the medical workforce, alongside the emergence of new healthcare professions.

At the same time, the challenges of recent years — COVID-19, the longest war in the country's history and persistent political instability — are taking a clear toll. The resignation of the Shas ministers from the government, including the Minister of Health and the Chair of the Knesset Health Committee, has effectively left Israel without a full-time health minister, making it difficult to secure governmental attention and budgets for the sector. As of November, the Health Basket Committee had still not begun its work because there was no minister authorized to sign off on committee appointments. In previous years, too, deliberations were delayed due to the war, pushing back approval of the updated benefits basket and causing significant suffering for patients awaiting decisions.

The burnout survey conducted by the Ministry of Health since 2018 roughly every three years, and administered again during the recent war, indicates a sharp rise in burnout among Israel's health-system workforce — especially among resident physicians and nurses. The overall burnout index rose from 3.4 in 2021 to 3.6 in 2025 (on a scale of 1–7), and about 40% of workers are experiencing high levels of burnout, with a strong correlation between burnout and depressive symptoms. There are, however, some bright spots: despite high burnout, most workers still report meaning and satisfaction in their jobs, teamwork has improved and exposure to workplace violence has decreased.

Addressing the system's many challenges — including health and workforce disparities across regions and socioeconomic groups, implementing the national master plan for the healthcare system, and managing the crisis in long-term care insurance — requires integrated work across all parts of the system and the rebuilding of trust, both among stakeholders and between the system and the public.

The public continues to express relatively high trust in the healthcare system overall, but trust is not inexhaustible. Calls by members of Knesset to withdraw from the World Health Organization and the spread of conspiracy narratives — gaining new momentum since COVID-19 — demonstrate that assumptions once taken for granted can no longer be relied upon.

The core strength of Israel's health system lies in its workforce and in the public's trust. In recent years the system has shown repeatedly that it can rise to the occasion in emergencies, but it requires continuous, sustained effort — not just crisis-mode heroics. The paradox with which this chapter began — excellent health indicators by international standards paired with one of the lowest levels of public investment among OECD countries — is untenable. High vaccination rates and the return of Israeli medical students and trainees from abroad can no longer be taken for granted, especially at a time when international health collaborations are collapsing with increasing frequency. Health must be elevated as a national priority — both in public investment and in system management — so that Israel can continue to provide high-quality medical care and health-promotion services that enable well-being and prosperity.

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## *Executive Summary*

# **Tipat Halav Service (Family Health Centers) in Israel: Where Is It Headed?**

Nadav Davidovitch, Sarit Silverman, Efrat Sales, and Yair Sadaka

In early childhood, a substantial portion of a child's health and developmental potential takes shape, and investment in these areas during the first years of life directly contributes to maximizing the nation's human capital potential. In Israel, preventive health services for young children are provided through the Tipat Halav well-baby clinics. This policy paper presents a troubling picture of Tipat Halav services in Israel — the main public institution for child health in early childhood. The clinics suffer from severe budget neglect, a shortage of staff, major maintenance problems, and a sharp decline in vaccination rates — a trend that could endanger public health as a whole. This is happening against a backdrop of ongoing increases in the child population in Israel.

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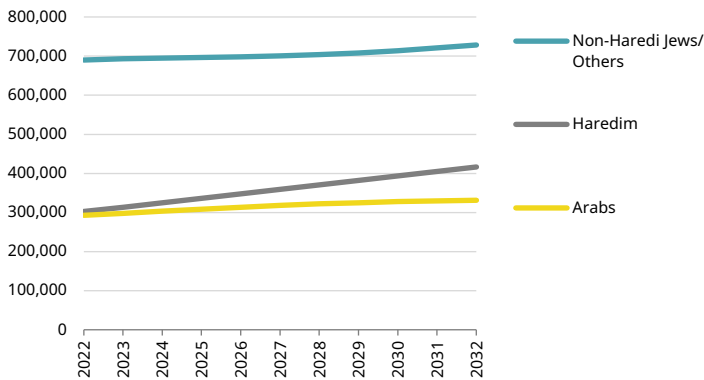
\* Prof. Nadav Davidovitch, Principal Researcher and Chair, Health Policy Program, Taub Center for Social Policy Studies in Israel; Director, School of Public Health, Ben-Gurion University of the Negev. Dr. Sarit Silverman, Senior Researcher, Taub Center. Efrat Sales, doctoral student, Faculty of Humanities and Social Sciences, Department of Politics and Government, Ben-Gurion University of the Negev. Dr. Yair Sadaka, Head, Negev Child Development Center, Be'er Sheva, Ministry of Health; Researcher, KI Institute and Ben-Gurion University of the Negev. This study was first published in July 2025 and is available on the Taub Center [website](#) (Hebrew only).

## The challenges and failures in Tipat Halav

- *A breakdown in the vaccination system.* The vaccination rate for children in Israel for the MMRV vaccine (the combined vaccine against measles, mumps, rubella, and chickenpox), which was once among the highest in the world, is showing a worrying decline: from 73% in 2019 to just 64% in 2023. The paper shows that none of the Tipat Halav service providers — the Ministry of Health, the health funds, and the local authorities of Jerusalem and Tel Aviv — met the vaccination targets set by the Ministry of Health. Vaccination rates for other vaccines have also fallen, especially after the Covid-19 pandemic. For example, in 2021, the chance of a child not being vaccinated against measles was seven times higher compared to the pre-pandemic period, and the chance of missing the fourth dose of the pertussis vaccine was 5.6 times higher. The researchers emphasize that non-vaccination endangers not only the individual but the entire public, as it undermines the ability to achieve herd immunity, which protects the whole population, not just those vaccinated.
- *A severe shortage of manpower.* The population of children aged birth to six is steadily increasing: from 1991 to 2024, the number of live births in Israel rose by 71%. Moreover, projections show that the early childhood population will grow from 1.29 million children in 2022 to 1.48 million by 2032. Despite this, staffing at Tipat Halav clinics has not significantly changed over the years and has not been adjusted to meet growing needs. In addition, the relatively low salaries offered at Tipat Halav compared to other healthcare frameworks make it difficult to recruit and retain doctors and nurses over time.
- *Lack of information transfer and gaps in continuity of care.* Medical care for children involves many providers and care settings. Currently, information collected about a child in hospitals and health funds is not transferred to the relevant Tipat Halav station, creating information gaps. This lack of information sharing is a serious failure that can harm continuity and quality of care for the child and may also lead to unnecessary duplication and waste of system resources.

- *Poor maintenance.* The Ministry of Health, which provides services to more than half of Israel's children, operates the Tipat Halav stations under its responsibility in buildings owned by local authorities. About a third of the clinics are housed in old, deteriorating buildings with problems such as mold, damp, and neglected yards. However, the Ministry of Health struggles to allocate funding for renovations and for constructing new facilities.

### Projections of the early childhood population (birth to age 6), by population group, 2022–2032



Source: Davidovitch, Silverman, Sales, and Sadaka, Taub Center | Data: CBS; Weinreb, 2020

- *Widening gaps in language acquisition milestones.* A previous study conducted by the Taub Center in collaboration with the KI Institute examined the link between achieving language development milestones and the mother's education level (a proxy for the family's socioeconomic status). The lower the mother's education, the higher the share of children not reaching milestones on time. It also found that these gaps grow with the child's age, especially between ages two and three, and are most pronounced among children of mothers with only a primary or secondary education. These findings point to widening gaps between socioeconomic groups in Israel and highlight the critical need to monitor developmental milestones at Tipat Halav stations.

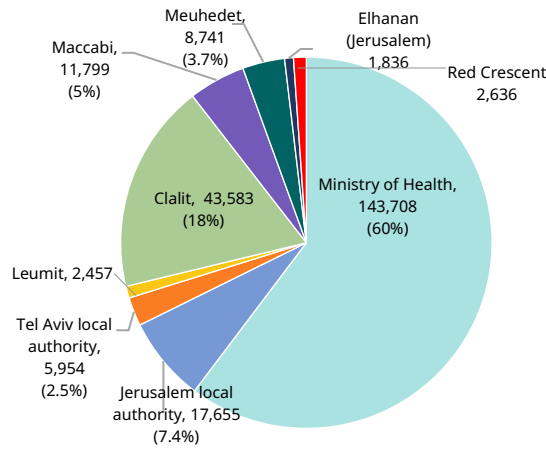
## Policy options

To ensure that Israel's population can continue to benefit from the vital services of Tipat Halav, it is necessary to strengthen and preserve this system. To that end, several policy alternatives are proposed. A more complete set of alternatives, with their advantages and disadvantages, are detailed in the paper.

1. *Maintain the current system with essential adjustments and improvements.* In this option, the organizational structure remains as it is today, while correcting budget distortions and improving cooperation among the various health providers. Preserving the current system has the advantage of the Ministry of Health's proven experience in emergencies: the Ministry knows how to operate the Tipat Halav network for a quick response to emergencies such as disease outbreaks and is well-prepared to handle them. In addition, Tipat Halav's staff have specialized training and extensive experience in prevention and health promotion.
2. *Establish an Early Childhood Authority.* This authority would consolidate all early childhood activities, which are currently spread across different government ministries, and secure increased funding for Tipat Halav to ensure its effectiveness and accessibility. The authority would have a broad, holistic perspective, enabling it to identify the unique needs of young children in education, welfare, and health. It would also resolve the issue of communication and information transfer among the various health providers.
3. *Transfer responsibility for operating Tipat Halav to local authorities.* Although this option has been rejected several times in the past, it now seems quite feasible given that many local authorities have become active in health promotion and in related areas of education and welfare. Moreover, this model already operates in Tel Aviv and Jerusalem. The advantage of this option is that local authorities function well in emergencies. As seen during the current war, they are engaged and effective in providing health responses and strengthening community resilience. Local authorities also have strong ties to the community and a deep understanding of the challenges in each neighborhood and population group.

4. *Transfer responsibility for operating Tipat Halav to the health funds.* The advantage of this option is that the health funds already provide medical services to the entire population, and to children in particular, so major system changes would not be needed. Bringing Tipat Halav services and other health services under the same roof would solve the problem of communication and information transfer between different agencies and help maintain continuity of care for the child.

### Tipat Halav clinics, by service provider, 2023



Source: Davidovitch, Silverman, Sales, and Sadaka, Taub Center | Data: Ministry of Health

Tipat Halav, which for years has been a cornerstone of Israel's healthcare system, is now in crisis. Without immediate changes in funding, responsibility, and management, there is a real risk of lasting harm to the health and development of Israel's children.





## *Executive Summary*

# Implications of Raising User Copayments for Purchasing Medicines and Healthcare Services

Gabi Bin Nun, Nadav Davidovitch, and Nir Kaidar

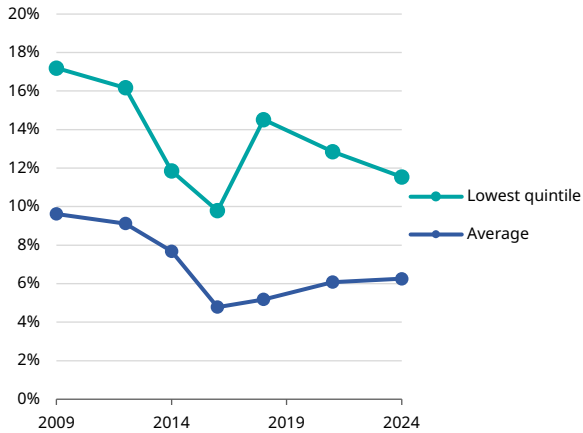
Following the [government's decision](#) to raise copayments for medicines, services, and medical technologies included in the national healthcare basket, Taub Center researchers examined the proposal and its expected implications. According to the researchers, while such a move may increase state revenues, it is likely to place a greater burden on most of the population, potentially harming public health — especially for older adults, the middle class, and those with chronic illnesses. More specifically, higher copayments would likely increase the phenomenon of foregoing medicines and medical services due to cost. For example, in the Arab population and among low-income individuals, the share of those who forgo medicines for financial reasons is twice the national average. The researchers warn that this could exacerbate health inequalities.

The researchers urge decision makers to reject the proposed copayment increase and instead consider more progressive and efficient funding alternatives in order to protect public health. They suggest that the role of copayments in financing national health expenditure be reconsidered.

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\* Prof. Gabi Bin Nun, professor emeritus, Department of Health Systems Management, Ben-Gurion University of the Negev. Prof. Nadav Davidovitch, Principal Researcher and Chair, Taub Center Health Policy Program; School of Public Health, Ben-Gurion University of the Negev. Nir Kaidar, Director General, Taub Center for Social Policy Studies in Israel. This study was first published in August 2025 and is available on the Taub Center [website](#)

### The share of individuals who decided to forego the purchase of medications or medical treatment due to cost, 2009–2024



Source: Gabi Bin Nun, Nadav Davidovitch, and Nir Kaidar, Taub Center | Data: Brookdale Institute

Beyond the important empirical question of whether copayments are intended as a tool to promote rational use of medicines, reduce excess demand, and restrain health spending, or whether they serve as a barrier with negative impacts, it is important to remember that this is a regressive form of financing that increases inequality, and that there are more progressive alternatives. Another important point is that the additional revenue from higher copayments is not necessarily earmarked for the health system, which could set a troubling precedent.



# ENVIRONMENT & HEALTH





# Investment and Returns in the Environment and Health: The Water Sector, Energy, and Government Expenditures

Or Siman-Tov, Yael Yavin, Nir Kaidar, and Maya Sadeh

## Introduction

Security concerns in Israel often push environmental issues to the bottom of the national agenda. Yet addressing these issues touches on some of the most basic and essential human needs: clean air, energy security, clean and plentiful drinking water, and safe, healthy food, access to nature, open spaces, and more.

In Israel, as well as globally, public discussion of environmental topics focuses mainly on climate change. But the environmental crisis has three major components — biodiversity loss, anthropogenic pollution, and climate change — and the challenges they pose are tightly interlinked. In recent years, numerous tools have been developed for measuring the state of the environment and its resources, allowing countries to assess their progress and compare their performance with that of other nations. Examples include the UN's SDG (Sustainable Development Goal) Index, launched in 2015 to promote environmental, social, and economic development by 2030;<sup>1</sup>

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\* Or Siman-Tov, Researcher and member of the Taub Center Research and Policy Initiative for Environment and Health. Yael Yavin, Researcher and member of the Taub Center Research and Policy Initiative for Environment and Health. Nir Kaidar, Director General, Taub Center for Social Policy Studies in Israel. Dr. Maya Sadeh, Principal Researcher and head, Taub Center Research and Policy Initiative for Environment and Health. This study was conducted with the generous support of Yad Hanadiv

1 See the [UN website](#).

the NCI (Nature Conservation Index), developed at Ben-Gurion University of the Negev and launched in 2024, which evaluates 180 countries on four core parameters — endangered species, habitat health, the size and quality of nature reserves, and the effectiveness of conservation programs;<sup>2</sup> and the EPI (Environmental Performance Index), developed by researchers at Yale and Columbia Universities, launched in the mid-2000s. Every two years, the EPI ranks 180 countries on climate change performance, environmental health, and ecosystem vitality across 58 performance indicators in 11 categories (Block et al., 2024).<sup>3</sup>

Israel's standing in the environmental domain will be examined using the EPI. In 2024, Israel received a score of 48 out of 100 in the overall index, ranking 70th out of 180 countries.<sup>4</sup> Since 2014, its overall score has improved by 0.4 points. However, it is important to note that the index reflects statistical data and does not always mirror on-the-ground reality. For example, in the area of the *environment and health*, Israel received a weighted score of 64.4 and ranks 35th and above the trendline (Figure 1A), due to indicators such as drinking water and wastewater treatment and exposure to lead, even though its scores and ranking on air quality (68% of the environmental health score) are low. Although Israel's air quality is better than that of countries such as India and China, exposure levels to fine particulate matter (PM2.5) and nitrogen oxides (NO<sub>2</sub>) are among the highest in the OECD, and Israel consistently ranks among the countries with the poorest air quality in this regard. Poor air quality in Israel is also reflected in premature mortality (a loss of about 66,000 life-years), estimated at about 5,500 deaths per year (Levi & Karakis, 2024). Moreover, although Israel ranks very low (165 out of 180) in per capita municipal waste generation due to the large volume of waste produced per person, it receives exceptionally high scores and rankings in solid waste management — namely waste collection and treatment (score of 100 and rank of 1 in this category). In this case, the score and ranking do not reflect on-the-ground reality at all, as recent years have seen severe deterioration: criminal actors have entered the sector, and large quantities of waste are dumped in open areas and illegally burned (Lavie, 2025; Sadeh & Siman-Tov, 2024).

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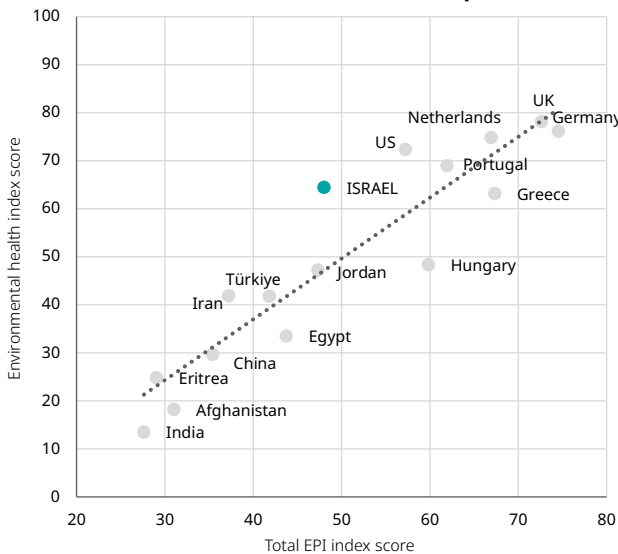
2 See the [BioDB website](#).

3 See also the [Yale University website](#).

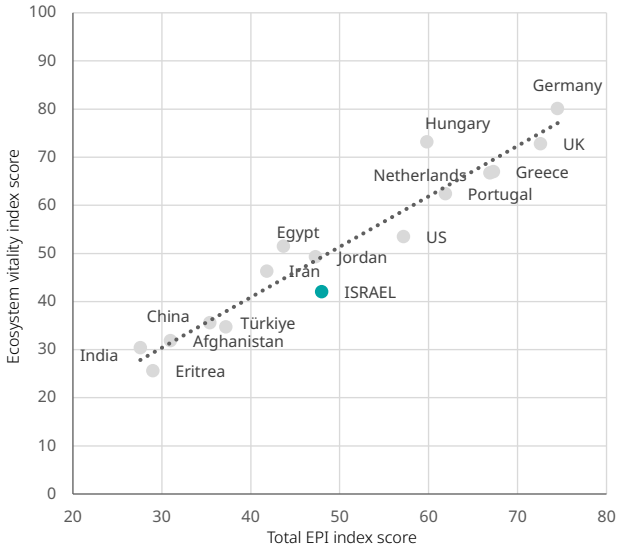
4 The data on the website are updated periodically, so minor differences may exist between the figures shown online and those reported here.

It seems that Israel's performance in *ecosystem vitality* reflects on-the-ground reality more accurately (Figure 1B). Israel received a score of 42 out of 100 and ranks 135th, due to a low ranking in species conservation (Biodiversity & Habitat index) (149) and in the status of endangered species (Red List Index) (153), and a mid-range ranking for the condition of terrestrial and marine biome and habitats within protected areas. In agriculture-related indicators (production of agricultural output with minimal environmental damage), Israel's performance has deteriorated in the last decade, and ranks 130th. In *climate-change preparedness*, Israel is ranked only 83rd, owing to high methane emissions (178) and its minor movement toward the global goal of net-zero emissions by 2050 (115) (Figure 1C). On the carbon-flux indicator — which measures the balance between land use types that generate emissions (e.g., roads and built-up areas) and those that sequester carbon (e.g., natural vegetated areas) — Israel ranks 154th with a score of 11.4, having fallen by 47 points since 2014, a sharp decline reflecting development pressures on open spaces. These data make clear that the state must invest in smart and dense planning and development and intensify conservation efforts of open spaces.

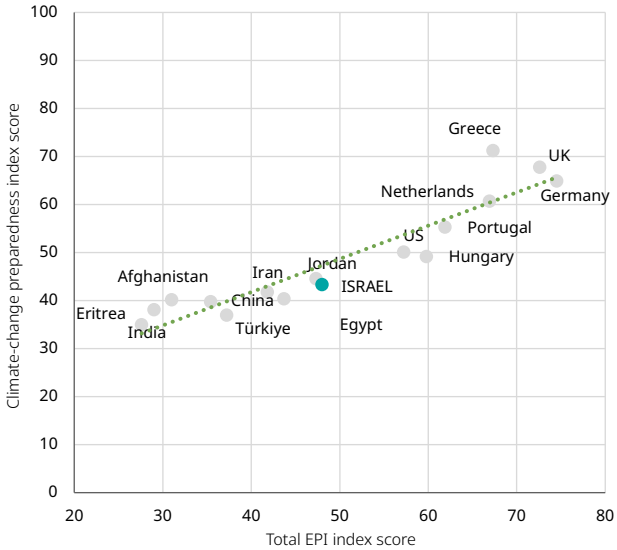
**Figure 1A. Score in the area of the environmental health versus the total EPI index score, international comparison, 2024**



**Figure 1B. Score in the area of the ecosystem vitality versus the total EPI index score, international comparison, 2024**



**Figure 1C. Score in the area of climate-change preparedness versus the total EPI index score, international comparison, 2024**



Source: Siman-Tov, Yavin, Kaidar, and Sadeh, Taub Center | Data: EPI

This chapter is divided into three main parts. The first examines government investment in environmental protection. The second focuses on the energy sector and reviews the available renewable alternatives, their feasibility, their economic viability, and the environmental and health implications of transitioning to them. The final part addresses Israel's water sector in its various dimensions, including the shift to desalination and the importance of preserving natural water sources.

## Government expenditure on environmental quality

Government spending on environmental protection includes expenditure on waste treatment; nature conservation, including biodiversity conservation; reducing air and water pollution; and mitigating climate change and its impacts. The environment is a public resource and directly affects citizens' well-being. It also helps reduce morbidity and, in turn, healthcare system costs (Xia et al., 2022), preserve agricultural productivity (Omer et al., 2005), and save energy (Li et al., 2012). This section reviews the composition of government spending on environmental protection and how it has changed, and presents an international comparison of spending on waste treatment, the largest component of environmental spending in Israel.

In 2024, actual public spending on environmental protection in Israel totaled about NIS 10.7 billion (in 2024 prices),<sup>5</sup> around 1.2% of total public sector expenditure (excluding interest payments on public debt). Most of this spending — about NIS 9 billion (87%) — is financed by local authorities, with the remainder financed by central government. As noted, most expenditure is directed to waste management, as shown clearly in Figure 2, which presents spending between 2013 and 2024 by category. Local authorities finance 92% of this component. In 2024, spending on waste treatment accounted for 83% of total environmental protection expenditure, while spending on wastewater management accounted for 8.4%. Spending on air pollution prevention is particularly low, despite Israel's relatively high mortality attributable to air

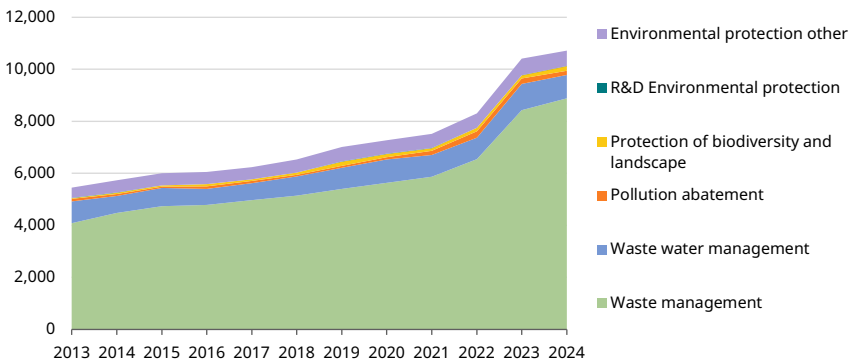
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5 See the CBS, Table 25.1, [General government expenditure, by function](#), September 23, 2024. Expenditure on environment protection is classified according to COFOG (Classification of the Functions of Government), a universal classification system for functions of government expenditure developed by the UN. Data for 2024 were taken from OECD, 2025b.

pollution.<sup>6</sup> Only a negligible share of the budget (less than 0.02%) is invested in research and development in environmental protection — and this share has been declining over time.

Looking over time, in 2024, expenditure on waste treatment was 54% higher than in 2013, even though the population grew by only 25% over the same period — with the main surge occurring in the last three years (2022–2024). The explanation is that starting in 2022, the Maintenance of Cleanliness Fund began to be used extensively to establish advanced facilities for waste treatment and recycling. Notably, this investment is intended to reduce spending on waste treatment over time. By contrast, spending on wastewater management increased by only 7% over the period — about one-quarter of the rise in population — making it difficult to manage wastewater properly and leading to a rise in malfunctions (we expand on this in the section on water management and environmental resource management).

**Figure 2. Government expenditures on environmental services, by sub-category**  
NIS millions, 2024 prices



Note: The category “Environmental protection other” relates to environmental education and training, regulation and enforcement, etc.

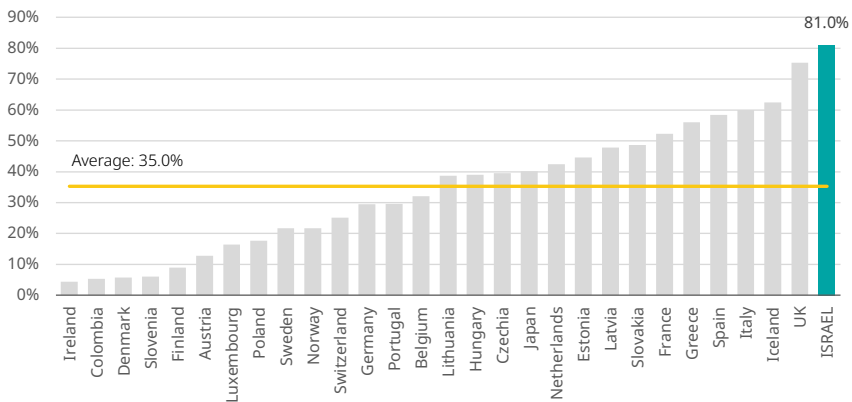
Source: Siman-Tov, Yavin, Kaidar, and Sadeh, Taub Center | Data: OECD

6 In 2023, 5,510 cases of premature death were recorded as a result of exposure to fine particulate matter, nitrogen dioxide, and ozone. For more details, see Levi and Karakis (2024).

As noted, local authorities bear most of the cost of waste management, which includes the costs of sorting waste, transporting it to sorting and landfilling sites, landfilling costs, royalties paid to the Israel Land Authority, and the landfill levy (which is transferred to the Maintenance of Cleanliness Fund) (Infospot, 2025; State Comptroller, 2025). For example, in 2025 the Jerusalem municipality spent about NIS 690 million on waste management overall — around 35% of the municipality's expenditure under "local services" and about 7% of its total budget.

An international comparison (Figure 3) shows that, in 2023, Israel's share of spending on waste management out of total environmental expenditure was the highest among OECD countries — 81%, compared with an OECD average of about 35%. Part of this gap reflects the increase in investment in waste infrastructure noted above, but the spending gaps were also large earlier (in 2021, for example, Israel's share was 78% compared with an OECD average of 39%).

**Figure 3. Government expenditure on waste management as a percent of total government expenditure on environmental protection, international comparison, 2023**



Source: Siman-Tov, Yavin, Kaidar, and Sadeh, Taub Center | Data: OECD

Among the reasons for Israel's high spending on waste treatment are the shrinking number of landfills, which has driven up both disposal costs and the gate fees charged by landfill sites; inefficient arrangements by the Ministry of Environmental Protection for separating waste at source; and the lack of facilities for generating energy from waste (Daskal & Ayalon, 2021). One effective way to reduce spending in this area is to shift the cost of waste treatment onto those who produce the waste, as is common in many local authorities in Europe, the US, Canada, and East Asia that implement PAYT (Pay-As-You-Throw) policies. This approach provides a direct incentive to reduce waste generation and disposal and encourages separation and recycling. Adopting it in Israel could substantially reduce spending on waste treatment. At the same time, given the widespread dumping of waste in open areas in Israel, steps should be taken to foster a culture of environmental responsibility and strengthen enforcement.

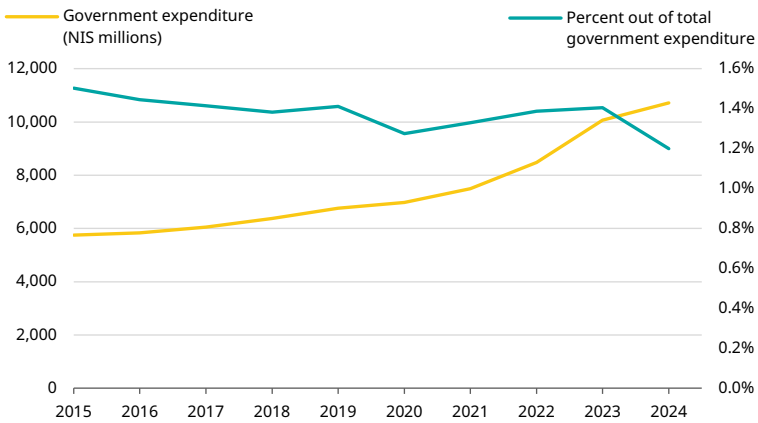
Looking at trends in total public expenditure on environmental protection over time (Figure 4), actual spending rose from NIS 5.8 billion in 2015 to NIS 10.7 billion in 2024 (in 2024 prices). Over the same period, its share of total government expenditure fell by 0.3 percentage points — from 1.5% to 1.2%. The drop in spending in 2020 can be attributed to the rise in other government expenditures during the COVID-19 period. This was followed by a slight increase in the relative share of environmental spending, but, in 2024, there was another decline, apparently due to the government's higher defense spending. As part of recent cuts, the Ministry of Finance canceled a NIS 200 million budget earmarked for climate initiatives (2023–2024); reduced funding from the Citizens of Israel Fund for renewable-energy projects (of the NIS 190 million planned for 2025, only NIS 10 million was allocated); froze the transfer of funds for closing environmental gaps in the Arab sector that had been promised under Government Decision 550 (2021);<sup>7</sup> and halted the transfer of about NIS 11 million to support environmental organizations (Adam, Teva V'Din, 2021, 2023, 2025a, 2025b; Gatton, 2025; Sadeh & Shafran-Natan, 2023).

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7 Government Decision 550 from October 24, 2012, [Decision 550: Five-Year Development Plan for Arab Society to 2026](#).

### Figure 4. Government expenditure on environmental protection and as a percent of total government expenditure (net of financial transfers)

NIS millions, 2024 prices



Source: Siman-Tov, Yavin, Kaidar, and Sadeh, Taub Center | Data: CBS

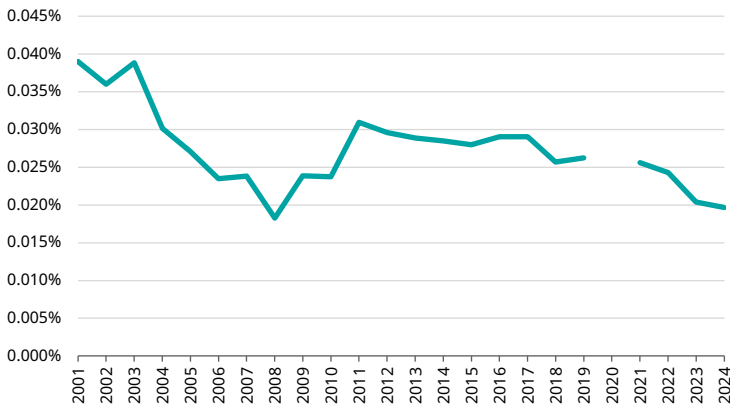
It is important to note that government spending does not capture total public expenditure on environmental protection. In many European Union countries, environmental regulation is relatively stringent — for example, carbon taxes, laws aimed at reducing emissions from vehicles, extended producer responsibility for recycling electronic waste, and more. Israel has also recently introduced a carbon tax, but it is relatively low, mainly the levy imposed on natural gas. The tax per ton of carbon dioxide in Israel currently stands at NIS 33, and it is expected to rise gradually to NIS 192 per ton by 2030.<sup>8</sup> In contrast, in Europe the tax in 2024 ranged from €11 (about NIS 44) per ton in Spain to €133 (about NIS 530) per ton in Switzerland (Cayol et al., 2025).

8 According to Government Decision 1261 from January 14, 2024, [Taxation of Greenhouse Gas and Local Pollutant Emissions](#) (the Carbon Tax).

## Environmental protection as a share of GDP

Figure 5 presents the budget of the Ministry of Environmental Protection as a share of GDP from the early 2000s to the present. It is clear that in the initial years this share declined sharply, reaching an all time low in 2008 of 0.018% — the lowest point in all the years examined. Between 2008 and 2011, the share increased, but then it began to fall again — though at a more moderate pace — until in 2024 it once again approached the 2008 low.

**Figure 5. Ministry of Environmental Protection budget as a percent of GDP**



Note: For 2020, data were not available.

Source: Siman-Tov, Yavin, Kaidar, and Sadeh, Taub Center | Data: Ministry of Environmental Protection, Budget key

In summary, although public spending on environmental protection in Israel has grown over the past decade, reaching NIS 10.7 billion in 2024 (2024 prices), the share of expenditure as a percentage of GDP has declined over the years, as has its share of total government expenditure, which today stands at only about 1.2%. Most of this expenditure is directed toward waste management, with only a very small share allocated to areas such as air pollution prevention, research and development, or reducing environmental disparities.

## The electricity sector and green energy

### Background

Electricity production in Israel has relied for decades on finite fossil fuels — initially oil and coal, and in recent years primarily on the fossil gas (commonly referred to as *natural gas*) discovered in Israel. According to estimates, Israel's fossil gas reserves will suffice for local consumption for about 20 years, depending on the rate of extraction, the extent of exports, the discovery of additional gas sources (if any), and the share of energy supplied by alternative sources (Kuprak, 2023).

The use of these polluting energy sources has led to greenhouse gas emissions, exposure to air pollution, and a deterioration in Israel's energy security. Data on energy from fossil fuels show that the *security margin* — that is, the gap between production capacity and peak demand — fell from 37% in 2014 to just 15% in 2023 (Grubman, 2025). The increase in energy consumption, driven in part by population growth, therefore requires an expansion of installed capacity<sup>9</sup> and energy generation to meet demand. For this reason, transitioning to renewable energy, which provides electricity free of greenhouse gas and air-pollutant emissions, is of strategic importance. Increasing the installed capacity and production of renewable energy will improve Israel's energy security.<sup>10</sup>

### Renewable energy in Israel

Thanks to Israel's sunny climate, solar energy has the greatest potential among all renewable energy sources. Realizing this potential is essential for reducing dependence on polluting fuels. However, the country's small size, population distribution, and the high density of the central region require planning and developing infrastructure that enables optimal use of this resource.

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9 *Installed capacity* refers to the amount of electricity a power plant can produce at a given moment, measured in watt or kilowatt. Actual electricity production (or consumption) is the power generated (or consumed) multiplied by the duration of generation (or consumption), measured in kilowatt-hours (kWh). Energy production facilities of different types or using different technologies are able to generate electricity for varying lengths of time.

10 When examining renewable energy data, it is important to distinguish between generation potential (measured in MW or GW) and actual production (measured in MWh or GWh), as detailed above.

Ahead of Israel's signing of the Paris Agreement in 2015 — under which countries committed to taking steps to reduce greenhouse gas emissions — the State of Israel set long-term targets for integrating renewable energy into electricity production: 13% of electricity generation by the end of 2025 and 17% by 2030 (mainly by replacing coal use).<sup>11</sup> In October 2020, the government set a target of 30% renewable energy by 2030.<sup>12</sup> Following this, the Electricity Authority and the Ministry of Energy and Water presented higher targets in 2022: 20% of electricity generation from renewable sources by 2025 and 30% by 2030. Over the past decade, the installed capacity of renewable energy facilities increased substantially and reached about 6.8 GW in 2024 — roughly 27% of installed capacity (Electricity Authority, 2025). Despite this, actual consumption remains much lower — only about 14%–15% of electricity consumption.<sup>13</sup>

In Israel, compared to countries similar in population size and climatic conditions, the share of electricity generated from renewable sources in 2023 was the lowest. However, it should be noted that in Israel, 94% of renewable electricity is generated from solar energy, which is available only during part of the day, whereas in the other countries renewable sources also include other sources (such as wind and biomass), which are available more consistently.

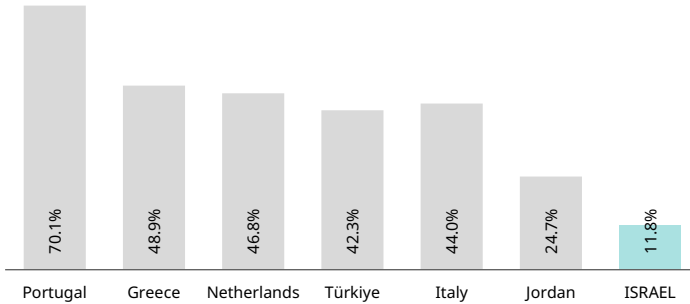
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11 See Government Decision 542 from September 20, 2015, [Reducing Greenhouse Gas Emissions and Energy Consumption Efficiency](#).

12 See Government Decision 465 from October 25, 2020, [Advancing Renewable Energy in the Electricity Sector and Amendments to Government Decisions](#).

13 According to a report by the Electrical Authority, it was 14.7%, and according to the Calcalist, it was 14% (Ashkenazi, 2025), based on an analysis by BDO.

**Figure 6. Share of electricity generated from renewable energy sources out of total electricity generation, 2023**



Note: The comparison countries resemble Israel in their population size and/or climatic conditions.

Source: Siman-Tov, Yavin, Kaidar, and Sadeh, Taub Center | Data: IRENASTAT

A key issue in solar energy is the need to store the energy produced during daylight hours for use when there is little or no sunlight (at night, in winter, or on cloudy days). There are several solutions for storing energy from renewable sources, but in Israel the field is not sufficiently developed and its advancement has been slow. Existing solutions include lithium-ion batteries, pumped-storage facilities, and green hydrogen. Today, lithium-ion batteries are the main method of storing electricity generated from solar energy, and they can store energy for about four hours. During periods of surplus electricity (daylight hours), electrical energy is converted into chemical energy in the battery; during periods of shortage (nighttime), electrons are released and supply electricity to the grid. These processes are extremely fast and allow for rapid response to electricity shortages. Pumped-storage systems are based on two reservoirs at different elevations: in times of energy shortage (at night or in winter), surplus water from the upper reservoir flows to the lower reservoir through turbines, generating electricity. Israel currently has two operational facilities — one in the Gilboa, which began operating in 2020, and another at Kochav HaYarden, which began operating in 2025. Additional facilities are at various stages of development. Green hydrogen production also relies on

surplus electricity used to split water; the hydrogen ions are collected and compressed in the system, and unlike batteries, they can be stored for long periods. However, the process is currently considered expensive and is not yet commercially implemented in Israel.

Over the years, several bureaucratic barriers that delayed progress in this field have been removed. Regulations were amended to require the installation of solar systems in new construction projects (August 2024),<sup>14</sup> relevant plans for increasing electricity generation were approved,<sup>15</sup> storage facilities were built, and new incentives were introduced to encourage the installation of solar rooftops. Still, the steps taken thus far appear insufficient to meet the established targets. Progress has been slow, and at this stage it does not allow for a fundamental shift that would enable the state to rely almost entirely on renewable energy. In parallel to the slow expansion of renewable energy generation, the government is advancing the construction of gas-powered power plants. As noted, the carbon tax imposed on carbon dioxide emissions from gas use in Israel is very low. Encouraging the construction of gas-fired power plants may create a *locked-in problem* — a situation in which large initial investments in infrastructure compel continued use in order to recover the investment — thereby further slowing the transition to renewables. According to the OECD's latest report on Israel, the main drawbacks of imposing a low carbon tax on electricity generation from gas include the lack of incentives and resources for building renewable-energy infrastructure and for developing carbon-capture and storage facilities, which could reduce emissions until renewable energies are fully established in Israel (OECD, 2025a). In contrast, the report noted that direct budgetary support or guaranteed feed-in tariffs for renewable energy could raise electricity prices for the public and complicate the selection of an optimal mix of technologies as well as efficient competition among them.

A 2021 report shows that it is feasible for renewable energy to account for 50% of electricity consumption by 2030, and for reliance on green energy to reach 95% by 2050 (NZO, 2021). Achieving this requires defining the transition to renewable energy as a national objective and formulating a comprehensive, long-term national plan for the energy sector, in cooperation with government ministries, local authorities, and other relevant stakeholders.

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14 See the [Ministry of Environmental Protection website](#).

15 For instance, Government Decision 465 as noted in footnote 12 previously.

## Economic feasibility

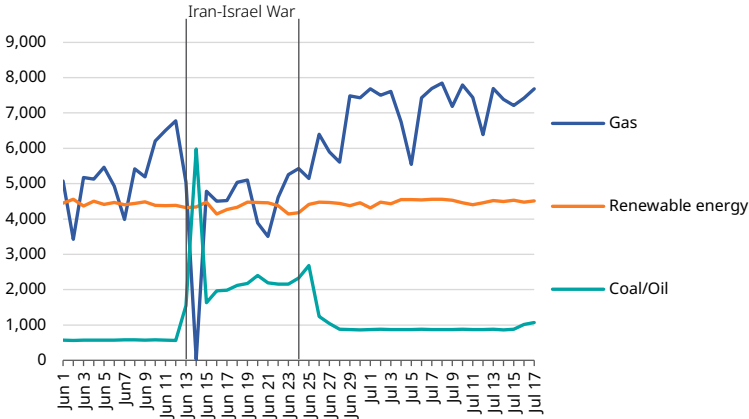
Some argue that a broad transition to renewable energy may raise energy prices and exacerbate energy poverty (OECD, 2025a). However, a long-term view suggests that a comprehensive shift to electricity generation based on renewable energy is expected to save the economy billions of shekels. A (conservative) economic analysis conducted by the Ministry of Energy and infrastructure in June 2025 found that the production cost of gas-based electricity is 43.1 agorot per kWh, compared with 26.7–35.5 agorot per kWh for electricity produced using solar systems (depending on the system type) (Yarmovsky et al., 2025). The report's unequivocal conclusion was that renewable energy would yield substantial net benefits to the economy, exceeding the cost of establishing new facilities, and that there is clear economic justification for continuing to promote and expand renewable energy.

Moreover, global experience shows that expanding the use of renewable energy contributes to job creation, increases labor productivity, and raises local economic growth rates (IRENA, 2019; REN21, 2021).

## Energy security: An example of electricity production in an emergency

During the Iran–Israel War (*Am Kelavi* — Operation Rising Lion) in June 2025, there was a dramatic shift in the electricity generation mix. Offshore gas production was almost entirely halted, and Israel was forced to substantially increase generation from polluting sources — coal-fired power plants and diesel generators. The share of coal and diesel in electricity production rose from under 10% to an average of about 20% (and at the start of the war it peaked at 60%). This event illustrates the crucial importance of using small, decentralized renewable-energy systems, which can provide energy security during times of crisis. Figure 7 shows the stability of electricity generation from renewable sources throughout the war and the shifts from gas-based production to production from coal and diesel.

**Figure 7. Sources of electricity production during the Iran-Israel War 12:00 in the afternoon, MW**



Note: The share of electricity generated from renewable sources shown in the figure reflects all energy sources at 12:00 noon in June, and is therefore higher than the share presented above.

Source: Siman-Tov, Yavin, Kaidar, and Sadeh, Taub Center | Data: NOGA — the Israel Independent System Operator, Ltd.

## Environmental and health impacts

The use of fossil fuels for electricity production directly affects both the global environment and the health of Israel's residents. Burning fossil fuels — coal, diesel, and gas — produces greenhouse gas emissions, which in turn contribute to the worsening of the global climate crisis. Coal- and oil-fired power plants emit hazardous air pollutants — fine particulate matter (PM2.5), nitrogen oxides, sulfur oxides, and others. These pollutants cause respiratory and cardiovascular diseases and increase the risk of mortality. In contrast, electricity generated from renewable sources emits virtually no air pollutants. Expanding the use of renewable energy in Israel would, therefore, generate numerous benefits: improve public health, reduce pressure on healthcare systems, boost environmental protection, enhance energy security — crucial in times of emergency — and serve to preserve natural resources for future generations, all alongside a substantial reduction in greenhouse-gas emissions.

## Conclusions and recommendations

Israel is currently at a turning point in the development of its energy sector. In recent years, important foundations have been laid for expanding the use of renewable energy, but additional effort is required to meet national targets — and perhaps to set even more ambitious ones — in order to ensure improved environmental and health outcomes. The 2025 Iran–Israel War underscored the country's continued dependence on fossil fuels and highlighted the need to strengthen energy resilience through clean, locally available sources. In light of these findings, it is recommended that Israel accelerate the development of renewable energy sources: expedite the deployment of solar installations in the built environment, encourage the development of additional renewable sources, and improve storage and transmission systems. These measures will diversify the energy mix and reduce dependence on polluting fuels. In addition, to enable a just and well-designed transition to renewable energy, it is advisable to evaluate their broader economic implications. A thorough, parallel assessment of the economic significance of shifting to renewable energy may provide the necessary impetus for advancing this transition.

## Israel's water sector in 2025: The hidden water crisis

### Background

Safe and healthy drinking water is not a given in this era of climate change and geopolitical instability. Israel is located in a water-scarce region, and in recent years, water shortages have increased not only in neighboring countries but also in places traditionally considered water-abundant, such as Spain, and even in extremely rainy countries like England. Water scarcity results from a combination of poor planning and management of water resources, high water consumption driven by population growth, water waste, and the climate crisis (Ben-Ari, 2025; Horton, 2025; Kaduri & Noy-Freifeld, 2023; Lerech Zilberberg, 2023).

Israel's natural water sources include surface water (rainfall, streams, and bodies of water) and groundwater. In addition, since the 1990s, Israel's water supply has included reclaimed wastewater (used mainly in agriculture), and since the 2000s, desalinated seawater in increasing volumes (desalination plants now provide roughly one-quarter of Israel's total water supply and about

60% of its drinking water<sup>16</sup>). Israel's natural waters are hard water, meaning they contain high concentrations of minerals essential to human health, but large segments of the population do not consume such water — either because of the high share of desalinated water in the supply or because of the widespread use of home filtration systems, which also remove minerals. The cost of desalinated water is relatively high due to the substantial energy consumption required for the desalination process (Avgar, 2018). Beyond the economic cost, desalination increases greenhouse gas emissions and causes additional environmental harm — due to the construction of plants and their accompanying pipelines; the ongoing operation of facilities, which involves storing and using chemicals and other hazardous materials; and the discharge of brine into the sea, affecting marine life and the broader marine environment (Avgar, 2018). In addition, desalination plants are sensitive sites in terms of security (for example, in the event of missile attacks). Therefore, despite the clear advantages of desalination, it is important to remember that conserving Israel's natural water sources and reducing water consumption are vital national interests.

## Trends in water consumption in Israel

In 2023, water consumption in Israel totaled 2.4 billion cubic meters. More than 50% was used for agriculture, with the remainder going to household, public, and industrial use (Figure 8).<sup>17</sup> Household and public water consumption in Israel<sup>18</sup> rose from about 670 to over 1,000 million cubic meters between 1998 and 2023, due in part to population growth, and its share of total use increased from 31% to 43%.<sup>19</sup>

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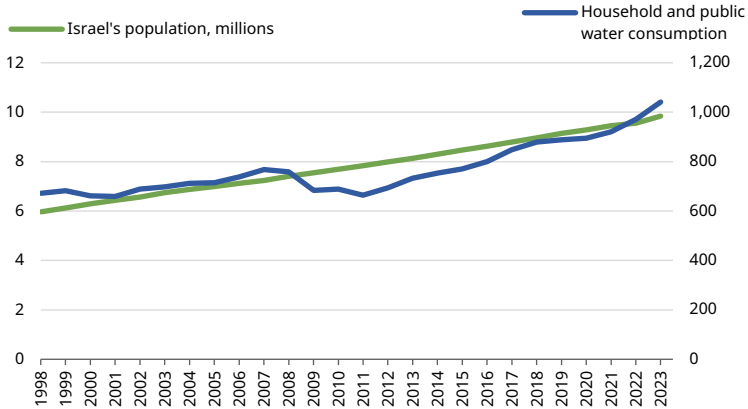
16 The volume of desalinated water supplied for drinking fluctuates, since Israel's drinking water comes from multiple sources that vary over time. It is also known that reclaimed wastewater — an important water source in Israel — is not used for drinking. In 2022, 596 million cubic meters of desalinated water were produced, accounting for about 60% of household and public water consumption (State Comptroller, 2024b).

17 A small amount of the total use (1.8%) is designated for return to nature (for example, rehabilitation of rivers).

18 Public consumption includes gardening and water use in public facilities such as schools, public swimming pools, and the like. Private and public consumption do not include industrial or agricultural use.

19 See [Water Consumption by Goals, 1998–2021](#), Water Authority; [Total Water Consumption in 2022 by Goals \(in MK thousands\)](#), Water Authority, August 31, 2023; [Water Consumption for 2023 at the Consumer Level](#), Water Authority (estimate is net of industrial consumption).

**Figure 8. Household and public water consumption in Israel relative to population size**



Note: Public consumption includes gardening and water use in public facilities.

Source: Siman-Tov, Yavin, Kaidar, and Sadeh, Taub Center | Data: Water Authority; World Bank

As shown in the figure, between 2008 and 2011, there was a marked decline in household and public water consumption. This decrease is particularly noteworthy, as it followed a decade of steady growth that corresponded to population growth. It can be explained by the large public awareness campaign during that period encouraging water conservation and reduced consumption, as well as by increases in water tariffs. In addition, steps were taken to reduce water loss through investment in infrastructure (Avgar, 2018; CBS, 2025). After 2011, household water consumption resumed its previous upward trend — and even more strongly.

Against the backdrop of the overall rise in water consumption in Israel, it is important to note that agricultural water consumption has not changed substantially over the past decade and generally remains around 1,200 million cubic meters. However, its share of total water consumption fell from 58% in 2013 to 52% in 2022. The total volume of agricultural production (excluding seeds, ornamentals, and forestry) also declined (by about 9% over the period), despite population growth during these years (Orlev-Sharon & Katz, 2024).

## The natural water crisis in Israel

As noted previously, the State of Israel has always faced a shortage of natural water resources. Yet despite the increasing use of desalinated water since the 2000s, data on natural water withdrawal versus natural water potential in Israel between 2000 and 2022 indicate that natural water consumption exceeds the volume available in natural sources almost every year (for example, in 2022 consumption exceeded the quantities in natural reservoirs by 30%).<sup>20</sup> In other words, natural water sources remain in deficit even with the growing reliance on desalinated water. Overuse of natural water depletes key natural sources: streams, which are essential for maintaining vegetation and wildlife; aquifers, the main source of natural water; reservoirs, which are critical for water security in times of crisis and war; and bodies of water such as Lake Kinneret, which in addition to serving as an important drinking water reservoir also provide recreational and public welfare benefits.

Between 2024 and 2025, the Ashdod desalination plant — one of Israel's five operational desalination plants — did not operate at full capacity, and the Sorek B plant, which was expected to begin operating in 2023, began partial operation only in March 2025, leading to over-pumping from Lake Kinneret (Binyamin, 2025). The level of the Kinneret, which stood at roughly 3.7 meters above the red line in May 2024, fell by more than two meters over the following year, reaching 1.5 meters above the red line in May 2025. More concerning, from May to November 2025, the level dropped by nearly two additional meters, reaching 0.35 meters below the red line. A warning from the Water Authority about an exceptionally dry winter — in which streams nearly dried up and the Kinneret level failed to rise — led the Minister of Finance to issue a drought order on July 28, 2025, enabling farmers to receive compensation for weather-related damages (Curiel, 2025).

Beyond low rainfall, Israel's groundwater and surface water suffer from contamination originating from multiple sources: fuel leaks, infiltration of industrial chemicals such as the PFAS pollutant,<sup>21</sup> fertilizer seepage from agricultural activity, pollution of streams, and more. The groundwater reservoir is also at risk due to extensive construction on aquifer recharge areas (Israel National Academy of Sciences, 2024; Katz, 2024; State Comptroller, 2021).

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20 See the CBS website, [Clean Water and Sanitation \(Goal 6\)](#).

21 A hazardous pollutant found in 13% of Israel's drinking water wells.

Despite these troubling data, it appears that much of the public is unaware of the water crisis we are facing. A survey published by the Zalul Association in July 2025 found that 40% of the public believes there is no water crisis in Israel, 40% believes there is, and 20% don't know. The survey also shows that while the public adopts some water-saving practices, it does not employ all available measures (Degani, 2025).

## SPOTLIGHT

# Hardwater and Health

Water hardness is determined primarily by the presence of two minerals: calcium (Ca) and magnesium (Mg) (WHO, 2010).<sup>22</sup> The higher the concentration of these minerals, the harder the water.<sup>23</sup> Water hardness is sometimes perceived as undesirable: hard water can damage household appliances that use water (kettles, washing machines, etc.) and leave deposits in pipes. However, from a health perspective, drinking hard water is actually considered beneficial due to its mineral content (WHO, 2010). Magnesium is essential for the proper functioning of the cardiovascular, nerve and muscular systems; it helps convert sugar into energy and reduces the risk of heart disease, diabetes,

22 Additional contributors to water hardness include trivalent iron ions, manganese, sulfur, and bicarbonate.

23 Water hardness is classified as follows: soft water (up to 60 mg/L calcium carbonate [ $\text{CaCO}_3$ ]); moderately hard water (60–120 mg/L calcium carbonate); hard water (120–180 mg/L calcium carbonate); and very hard water (over 180 mg/L calcium carbonate).

and more (Momeni et al., 2014; Sadeh, 2024; Sengupta, 2013). Calcium deficiency has been linked to an increased risk of osteoporosis, colon cancer, kidney stones, hypertension, stroke, and obesity (Bykowska-Derda et al., 2023; Momeni et al., 2014; Rapant et al., 2024; Sengupta, 2013; Yang et al., 2024). During the desalination process, all minerals are removed from the water (rendering it soft), and calcium is added back at the desalination plants to stabilize the water at 80–120 mg/L  $\text{CaCO}_3$  (according to the Public Health Regulations [The Sanitary Quality of Drinking Water and Drinking Water Facilities], 2013). The desalination process also removes fluoride — important for dental health — and iodine, essential for early cognitive development, hormonal balance, and more. Natural fluoride levels in Israel are considered relatively low, except in groundwater in the south, where they are higher. Drinking water in Israel provides about 10% of iodine intake (most iodine intake comes from food), and levels vary across regions depending on groundwater composition (Kafri et al., 1989).

In a 2022 report, the World Health Organization stated that there are insufficient data to set recommended levels of minerals such as calcium and magnesium in drinking water, and therefore no official threshold values were established (WHO, 2022). Nonetheless, the WHO notes that water can be an important source of calcium and magnesium — especially for populations with low dietary intake of these minerals — and therefore the public should be provided with information on the mineral composition of drinking water, particularly when changes are made to water sources or treatment methods (such as desalination). In Israel, the Ministry of Health publishes data on water quality and mineral composition, but the information is not sufficiently accessible or clear to the private consumer. Since the publication of the WHO report, several studies have supported the possibility that drinking hard water is associated with reduced

disease risk: a systematic review found a link between hard-water consumption and lower mortality from cardiovascular disease (Bykowska-Derda et al., 2023). Several studies using a cohort of about 500,000 individuals in the UK show that populations consuming hard water (calcium concentrations of 120–180 mg/L) have a lower risk of several types of cancer — including common cancers such as breast and lung cancer, as well as all cancers combined (except bladder cancer, for which hard-water consumption was found to increase risk). Similar associations were found for heart disease, dementia, and Alzheimer’s disease (Bao et al., 2025; Tian et al., 2025; Yang et al., 2024).<sup>24</sup>

Water samples collected by the Ministry of Health from the distribution system show substantial differences in water hardness (Figure 9).<sup>25</sup> Between 2014 and 2025, in the Ashkelon, Haifa, and Central Districts — where sampling occurred relatively frequently — the median hardness levels fell within the medium-hardness range, between 60 and 120 mg/L. In the Jerusalem District (sampled 2016–2023), average hardness levels were the highest, likely due to relatively limited use of desalinated water and extensive reliance on National Water Carrier supplies and groundwater from the Mountain Aquifer. These waters are harder than those in other districts (Gihon, 2023). It is important to remember that water composition changes over time, so differences may appear between samples taken at different points in time.

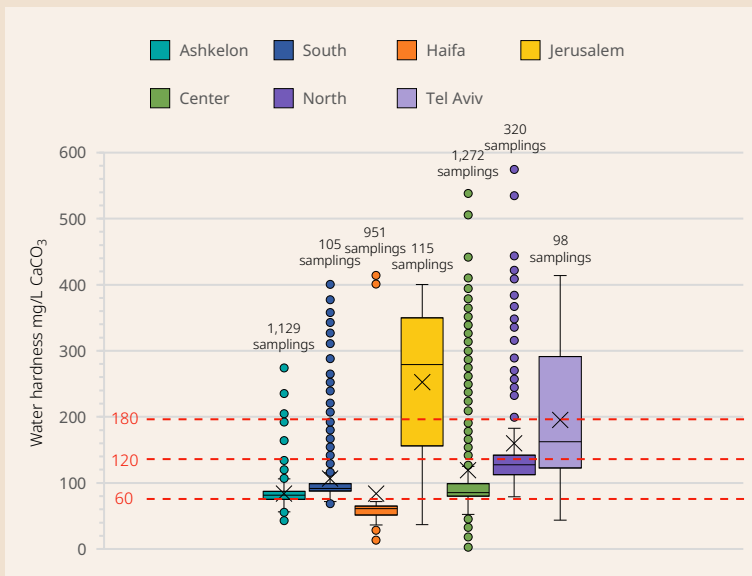
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24 For more on the relationship between magnesium deficiency and disease, see Sadeh et al., 2024.

25 According to the Ministry of Health website, “The results reflect the mineral concentrations at the time of sampling only. At a different time, concentrations may vary depending on the water sources supplying the area. There are not enough data for each sampling point or locality to determine the concentrations supplied throughout the entire year — only at the time of sampling.” In areas with desalination plants, more samples are taken due to the requirement to measure hardness at the plant’s water outlet.

In December 2025, an amendment to the Public Health Regulations was approved, allowing magnesium to be added to desalinated water. This is an important step, reflecting institutional recognition that drinking water is an important source of minerals for the population.

**Figure 9. Water hardness in Israel by district, 2014–2025**



Note: The figure shows the distribution of the sample data. The box represents the values between the first and third quartiles; the horizontal line inside the box indicates the median water-hardness value; and the "X" marks the sample mean.

Source: Siman-Tov, Yavin, Kaidar, and Sadeh, Taub Center | Data: Ministry of Health

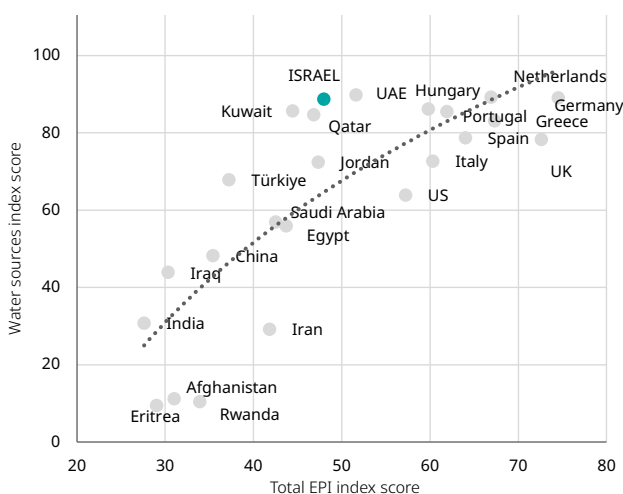
## Water and environmental resource management

The State of Israel recognized the challenges it faced and, several decades ago, began taking action to conserve water and ensure a safe water supply for its residents — initially through wastewater treatment and the use of reclaimed effluent in agriculture, an area in which Israel is a global leader, and, later, through the production of drinking water through seawater desalination (State Comptroller, 2024a).

In the EPI's water resources indicator, countries are assessed on how well they conserve their water resources through water savings and proper wastewater management. Israel's weighted score on this measure is high — 88.7 out of 100 — and it ranks sixth in the world (out of 180 countries).

Figure 10 shows Israel's standing in the water resources area compared with other countries in the region (Middle East, Greece, Gulf states), with countries similar in land area or population size (the Netherlands, Portugal), and with advanced high-income economies (the United States, Germany).

**Figure 10. Score for water sources versus the total EPI index score, international comparison, 2024**



Source: Siman-Tov, Yavin, Kaidar, and Sadeh, Taub Center | Data: EPI

Indeed, Israel excels on three performance indicators relating to wastewater treatment and effluent reuse, with scores above 92 and rankings between 11 and 19. By contrast, Israel's score for wastewater generation per capita is low — 32.9, ranking 127th. However, this measure may not fully account for the mounting difficulty faced by the water sector in managing growing volumes of wastewater due to rapid population growth and insufficient development of wastewater treatment plants. According to the most recent State Comptroller's report on the topic, in 2022 there were 1,544 malfunctions in sewage and effluent systems — an increase of 135% since 2017. Some of these failures result in excess, insufficiently treated effluent being discharged into the environment, potentially contaminating soil, streams, and groundwater. In the West Bank, improperly treated effluent and high rates of raw sewage (68% in 2022) are discharged into streams and the surrounding environment (State Comptroller, 2024a).

Wastewater treatment plants can treat only a certain volume of sewage. When the amount entering a plant exceeds its capacity, treatment becomes less effective, the quality of the effluent it produces declines, and untreated sewage may overflow into the sea, streams, and other water sources, causing contamination. According to a report by the Ministry of Environmental Protection, in 2023, nearly 20% of wastewater treatment plants — including the Shafdan site — operated above their designed capacity (Ministry of Environmental Protection, 2025). The report also notes that in the same year, only about 67% of all wastewater produced received the tertiary treatment required by law, which allows irrigation of crops intended for human consumption — although this share has increased since 2020, when it stood at only 56%. The remainder received only secondary treatment, which permits limited irrigation and use for gardens and lawns. An expert committee report published in December 2025 analyzes the health impacts of irrigation with inadequately treated wastewater, as well as the risks associated with irrigation using wastewater that has undergone tertiary treatment. The report warns that such effluent may still contain various contaminants, including disease-causing bacteria, which can harm public health (Dor et al., 2025). The outbreak of West Nile fever in June 2024 was a stark reminder of the consequences of inadequate wastewater treatment and sewage overflows. Hundreds of people became ill and dozens died, and the outbreak was likely caused by a combination of poor treatment at the Ramat HaSharon treatment plant, exceptionally high temperatures, and sewage overflows (Rinat, 2024; Sadeh, 2024).

## Summary

In this chapter we examined several environmental and health related issues and assessed their current status. We showed that government and public expenditure on environmental protection in Israel is low also relative to previous years. Most of this spending is allocated to waste management, while only a very small share is directed toward areas such as air pollution prevention or environmental research and development. Israel's waste crisis has severe health and environmental implications,<sup>26</sup> and its economic burden is extremely high. Israel's low overall score on the EPI suggests that heavy expenditure on solid waste treatment may be coming at the expense of meaningful progress in other critical domains, such as reducing air pollution, whose economic cost is estimated at 2.5%–3.3% of GDP (Ashkenazi, 2021).

Regarding renewable energy, we showed that expanding its share would allow for a reduction in the use of polluting fossil fuels that harm human health. Renewable energy is also essential for the country's energy security, both in emergencies and in general. Policy changes and defining the transition to renewable energy as a national goal could help Israel meet its commitments under international agreements and enable the economy to rely on green energy. Economic analysis likewise shows clear net benefits from expanding renewable energy at the expense of fossil fuels. However, the transition must be carried out judiciously so as not to harm vulnerable populations who may be prone to energy poverty.

In the section on the water sector, we found that thanks to public campaigns promoting water conservation about 15 years ago, household consumption declined for several years, but since around 2012 water consumption has increased more than would be expected from population growth alone. It is plausible that the rise in desalination over the past decade has reduced public awareness of the challenges facing Israel's water sector. Increased water consumption also leads to greater wastewater production, which poses potential public health risks due to the strain on wastewater treatment facilities, as illustrated by the West Nile fever outbreak in June 2024.

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26 This issue was discussed more fully in the chapter on environment and health in the State of the Nation Report 2024. See Sadeh and Siman-Tov, 2024.

It is crucial to protect Israel's natural water sources, and therefore public outreach on this issue and encouragement of water conservation are recommended. Preserving natural water resources is vital for water security and will also allow for the allocation of water to nature, whose contribution to public health is significant in its own right.

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# EDUCATION





# On Real and Perceived Crises in the Education System

Nachum Blass

## Introduction

This year's chapter on the education system examines three main issues: the Ministry of Education budget, the teaching workforce, and the Shapira Committee report. In the discussion of the budget, we first consider whether and how the Ministry of Education makes full use of the budget at its disposal; we then review changes in the budget by category; and conclude by examining the budget in an international comparison. The discussion of the teaching workforce addresses the issue of teacher shortages from perspectives we have not covered in the past. The final part of the chapter deals with the Shapira Committee report, which we view as an important turning point in the history of Israel's education system, with a focus on the committee's recommendation to reduce the average class size to 19 students per class.

## The Ministry of Education budget

In a study we published in 2014, we described the Ministry of Education budget and identified problematic patterns that emerged from the data, most notably a lack of transparency in the budget and large gaps between the original budget approved by the Knesset, the amended budget, and the budget actually implemented (Blass & Cogan, 2014). A large gap between the first two makes it difficult to track the original budget and to use it as a policy planning tool, and a gap between the amended budget and the implemented budget means that the

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ministry does not fully utilize the budget allocated to it. In this year's discussion of the budget, we return to these issues and examine whether the trends observed in that study have persisted or whether they have changed.

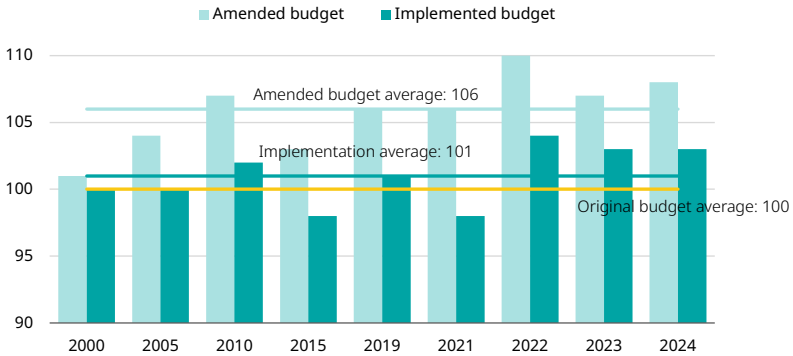
## **Does the Ministry of Education make full use of the budgets at its disposal?**

At the start of each year, the Knesset approves the annual budgets of the various ministries. This is the original budget. In practice, however, a range of changes are introduced during the year, subject to approval by the Knesset Finance Committee: that is, the amended budget. This budget comprises the original budget plus budget surpluses that were not used in the previous year, as well as additions or reductions to various items decided upon during the current year. Since the transfer of surpluses takes place every year, in our view it should be regarded as an integral part of the ministry's budget. Finally, there is the implemented budget of December 31 each year as reported in the Accountant General's reports.

Figure 1 presents the amended budget and the implemented budget as a percentage of the Ministry of Education's original budget, beginning in 2000. The figure shows that the gap between the amended budget and the original budget averages 6%, and in the past three years, it has even exceeded an average of 8%. In terms of implementation, throughout the entire period a recurring pattern of underutilization of the amended budget is evident — the average annual gap stands at nearly 5%. In 2025 terms, this amounts to more than NIS 4 billion per year on average, a substantial sum by any measure that could have made a significant difference in the system had it been utilized.

**Figure 1. Comparison across budget types**

Original budget = 100



Source: Nachum Blass and Jonathan Plotkin, Taub Center | Data: Ministry of Finance, Accountant General Department

## Notable changes in the Ministry of Education budget

Two items in the Ministry of Education budget stand out in their rate of growth in recent years: special education and reserves.

### Special education

In last year's review (Blass, 2024), we noted the exceptional increase in the number of special education students and in the budget allocated to them. According to Ministry of Education data, between the 2020/21 and 2023/24 school years (2020–2024), the population of special education students grew by 61%, while the total student population grew by only 8.5%. This growth continued into 2024/25, with an even sharper increase. In that year, the number of special education students jumped by 20%, from 295,000 to 354,000, while the total number of students in the system grew by less than 1%.<sup>1</sup>

1 In this context, we note that the Ministry of Education uses a range of definitions when reporting the number of special education students. At times, it refers only to students in separate special education settings and to those integrated into general settings who receive an individual support package. At other times, it also includes students who are integrated into general settings but are not eligible for an individual support package. The number of students under this broader definition is considerably larger. This figure is an estimate, since the total number of integrated students (those eligible for an individual package and those who are not) is determined by a formula, which in turn is driven more by budgetary constraints than by a thorough assessment of need.

At the same time, the special education budget in 2024/25 increased by 26%, while the Ministry of Education’s overall budget grew by 6.7% (the original 2024/25 budget compared with the revised original budget for 2023/24; see Bar & Moshe, 2025). In budgetary terms, this represents an increase of NIS 3.6 billion, whereas the Ministry of Education’s forecast as presented to the Shapira Committee was NIS 2.5 billion (Shapira Committee 2025, Appendix 8). This is an unprecedented development with far-reaching implications.

**Table 1. Ministry of Education budget and special education budget**  
NIS billion

School year	Total Ministry of Education budget	Special education budget		
		Original budget	Amended budget	Implemented budget
2019/20	—	—	—	8.9
2020/21	67.4	10.4	10.8	10.6
2021/22	67.8	10.6	11.3	11.2
2022/23	79.5	12.6	14.1	14.0
2023/24	84.1	13.9	16.3	16.2
2024/25	89.7	17.5	—	—

Note: The original budget refers to the revised original budget. At the time of writing, the amended budget data and implemented budget data for 2024/25 were not yet available, and in 2019/20 no budget was approved.

Source: Nachum Blass and Jonathan Plotkin, Taub Center | Data: Ministry of Education budget

## Reserves

The second budget item that has grown at an exceptional rate is the reserves. In this section, we focus on the transparency aspect of reserve ordinances.<sup>2</sup> The reserve is divided into three main types: a *reserve for price increases*, intended to finance rising costs, mostly in teachers' wages; a *fiscal reserve*, intended to

2 *Reserve ordinances* in the Ministry of Education budget, as in the state budget as a whole, are not ordinances in the legally binding sense, but rather budget lines that serve as a financial reserve for future uses or for unforeseen needs during the budget year. Their main purpose is to allow flexibility in managing the annual budget and to address changing circumstances. At the end of the year, this amount is reset to zero, and the sums transferred from it are supposed to appear in the amended budget under other budget lines. However, as we show, it is very difficult to track these funds, which is one of the main sources of the budget's lack of transparency.

finance needs that arise during the year; and, beginning with the 2021 budget, an allocation for coalition agreements, which, in 2024, amounted to nearly NIS 900 million. In addition, there are also *hidden reserves*, meaning sums that appear in the budget at the start of the year but are zeroed out in the course of the year.

**Table 2. Allocated and hidden reserves**

	Reserves in original budget	Reserves in amended budget	Reserves in implemented budget
<b>Allocated reserves</b>			
2018/19	2,617,894	—	—
2020/21	389,521	361	—
2021/22	3,227,697	—	—
2022/23	1,808,476	3,537	—
2023/24	5,382,398	3,811	—
<b>Hidden reserves</b>			
2018/19	594,254	—	—
2020/21	818,480	13,558	—
2021/22	660,347	49,342	13
2022/23	1,890,246	5,507	—
2023/24	1,481,033	1,481,033	—

Note: In 2019/20, there was no approved budget, so the year does not appear in the table. The 2022/23 data refer to the new original budget approved after the outbreak of the October 7 War.

Source: Nachum Blass and Jonathan Plotkin, Taub Center | Data: Ministry of Finance

As is clear from Table 2, the reserves are very substantial. To understand the purposes for which the reserve funds were allocated, at the beginning of April 2025, we submitted a request to the Ministry of Education under the Freedom of Information Law. In the request, we specified the reserve ordinances for which the information was required, the dates of the budget transfers, and the dates of the discussions in the Knesset Finance Committee, and asked to which budget lines the funds allocated in each of the reserve ordinances that appeared in the Ministry of Education's original budget from 2021 onward were actually transferred. We also requested accompanying documents, such

as minutes from Finance Committee discussions or professional background documents accompanying these budget transfers.

The Ministry of Education's response to our request was: "It is not possible to point to specific budget lines to which the budget was transferred." This response is an example of the lack of transparency — both toward the public and toward the Knesset — in the use of reserve funds, whose share has increased greatly in recent years. It clearly illustrates the gap between the public and legal demand to increase transparency and oversight and the reality in practice, which is characterized by lax supervision and a lack of transparency, without binding rules and clear limits on the actions of the executive branch. Over the years, there have been attempts to remedy the situation, but to little avail.

In 2015, the Finance Committee published the work procedure regarding changes to the state budget that regulates the process for submitting requests, discussing them, and reporting on implementation, and defines the division of authority between the committee, the Budgets Department, and government ministries. However, although the procedure was intended to promote order, efficiency, and transparency in the committee's work, in practice it preserves and even deepens the existing failures in the interface between the political and professional echelons. In particular, the procedure grants the chair of the Finance Committee especially broad powers, both in setting the agenda and in deciding which budget requests will be brought forward for discussion, including the option to deviate from the procedure in cases deemed an emergency. These powers, which are not accompanied by effective oversight mechanisms, open the door to political use of budgeting procedures while circumventing public and parliamentary scrutiny.

Following publication of the procedure, former Knesset member Stav Shaffir filed a petition to the High Court of Justice, arguing that the lack of transparency in budget transfers contravenes Basic Law: The State Economy. In the ruling on this petition, delivered on August 13, 2017, the Supreme Court instructed the State to formulate a new agreed-upon procedure on budget transfers and changes to the budget submitted to the Finance Committee.<sup>3</sup> Thus, although the petition was ultimately dismissed, the Court recognized the public importance of the issue and the shortcomings it raised.

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3 [Supreme Court 8749/13, Stav Shaffir versus Ministry of Finance and others.](#)

The State Comptroller also addressed the issue and warned of serious deficiencies in transparency in the use of budget reserves, noting that it is genuinely difficult to understand the purposes for which these funds are allocated. Moreover, the Comptroller pointed to the extensive control of the Budgets Department over the process and its influence in setting budgetary priorities, and also noted that the heavy workload imposed on the Finance Committee undermines its ability to fulfill its role in providing effective oversight of the budget (State Comptroller, 2018).

However, it seems that no one found it appropriate to take either the High Court of Justice's directive or the State Comptroller's recommendations seriously. At the end of 2024, the Finance Committee approved unprecedented budget transfers totaling about NIS 4.5 billion in just two hours, without giving Knesset members sufficient time to review the requests (Bar-Eli & Tucker, 2024), with the same rushed approval process occurring again at the end of 2025 (Dori, 2025).

Thus, eleven years after we published the article that pointed to the lack of transparency in the budget, eight years after the High Court instructed that a new procedure be formulated, and seven years after the State Comptroller recommended improving oversight and monitoring, it appears that nothing has changed. Today, the public and the Knesset (the opposition members in particular) have no ability to oversee the reserve budgets or their use.

## International comparison

An international comparison of investment in education in Israel and in OECD countries provides important insights into the place of the education system in national priorities and the level of resources allocated per student in Israel relative to countries that Israel aspires to emulate. Examining the trends makes it possible to compare Israel's per-student expenditure from all sources, expressed as a share of GDP per capita, with the average level of expenditure in OECD countries. The higher this share, the more it indicates that the country assigns greater importance to education.

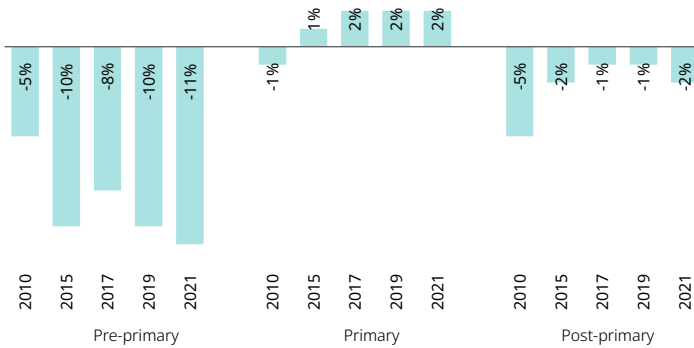
Figure 2 presents the gap between Israel and the OECD average in per-student expenditure between 2010 and 2021 (the latest year for which data are available). The data point to an improving trend in investment in primary and secondary education in Israel.<sup>4</sup> Moreover, in primary education,

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4 In data from the Education at a Glance, middle school is included in primary education.

spending in Israel even surpassed the OECD average, and, since 2017, investment has been about 2% higher than that average. In secondary education, investment rose gradually: the gap, which stood at 5% in 2010, narrowed to just 1% in 2017–2019, and then widened again to 2% in 2021. In contrast, investment in pre-primary education remained markedly lower than the OECD average, and the gap even widened from 5% in 2010 to 11% in 2021. This figure points to an ongoing preference for primary and secondary education over pre-primary education. This preference runs counter to findings from international research in this area, which is based largely on the work of Nobel Prize winning economist James Heckman (Heckman, 2006; Heckman et al., 2010, 2013), showing that investment at younger ages yields the highest return.<sup>5</sup>

**Figure 2. Gaps in per-student expenditure as a percent of GDP between Israel and the OECD average, by education level, 2009/10–2020/21**



Source: Nachum Blass and Jonathan Plotkin, Taub Center | Data: OECD, 2024

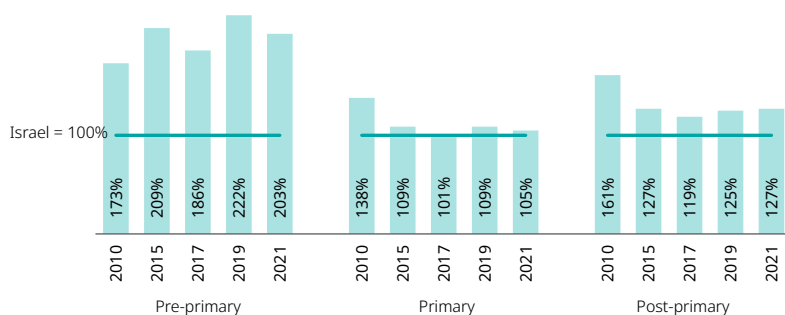
It could be argued that the gaps we pointed to in Figure 2 stem from Israel's high share of children relative to the OECD average — a fact that has a dramatic impact on the level of resources Israel can invest in each child. To control for this effect, we examined real expenditure per student in Israel relative to OECD

5 This was also one of the main reasons for the recommendations of the Shapira Committee “to upend the pyramid.”

countries. The results of this comparison, shown in Figure 3, indicate that in primary education (which, as noted, includes lower secondary) there has been an improvement over the years and today there are almost no gaps, and, in upper secondary education, the gaps still exist but a certain narrowing trend is evident. In contrast, in pre-primary education, not only did the gap in per-student expenditure in Israel relative to OECD countries not narrow, it actually widened over the period, from 73% to 103%. Here too, it is very clear that Israel assigns less importance to pre-primary education than do OECD countries.

**Figure 3. Real per-student expenditure: OECD average relative to Israel, by education level, 2009/10–2020/21**

Israel = 100%



Note: The comparison extends only through 2021 because in Education at a Glance 2025 (which reports data through 2022), the 2022 data are not broken down by education level.

Source: Nachum Blass and Jonathan Plotkin, Taub Center | Data: OECD, 2025

## An index of investment in education

As noted, when examining the importance a country assigns to investment in education, the key factors to consider are the number of students, GDP, and expenditure per student. To enable a meaningful comparison of investment in education in Israel relative to other countries, we at the Taub Center constructed a uniform index that combines these three variables.<sup>6</sup> The index is calculated by standardizing the significant variables (real expenditure per student, GDP

6 Education at a Glance 2025 attempted something similar. See Figure C1.4, OECD, 2025.

per capita, and the student population) into a single measure, with the final index score presented as the *average* of the three standardized scores for each country.<sup>7</sup> Table 3 presents the investment score in primary education in 35 OECD countries. The table shows that Israel's score on this index in 2010 was negative — meaning that relative to average investment in primary education in OECD countries, investment in Israel was comparatively low when all variables are taken into account. In contrast, between 2010 and 2021, its score improved by 0.46 points. This improvement places Israel among the countries with the largest increases in overall investment in education during this period, a finding consistent with the data presented previously, which highlight the improvement in per-student expenditure in primary education in Israel.

In summary, the data show that the overall trend of growth in the Ministry of Education's budget continued over the past decade, both in the total budget and in expenditure per student. This trend points to continued growth in investment in education. However, a closer look at the composition of the budget reveals that most of the increase is concentrated in special education and in reserve ordinances, rather than in investments to advance the general system, such as improving teaching conditions or expanding services for all students. Moreover, Israel still faces pronounced gaps in per-student investment relative to OECD countries in pre-primary education.

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7 In calculating the average, equal weight was given to each of the components of the index.

**Table 3. Taub index score for investment in primary education, 2010 and 2021, Israel and the OECD countries**

Country	2010 index score	2021 index score	2010–2021 difference
Germany	-1.32	0.31	1.63
Slovenia	-1.03	0.14	1.17
Iceland	-0.19	0.48	0.67
Slovakia	-0.56	-0.03	0.52
<b>ISRAEL</b>	<b>-0.43</b>	<b>0.03</b>	<b>0.46</b>
Italy	0.41	0.81	0.40
Poland	0.43	0.76	0.33
Greece	-0.43	-0.16	0.26
Chile	-0.64	-0.44	0.20
Netherlands	-0.36	-0.22	0.14
France	0.18	0.31	0.13
Hungary	-0.71	-0.60	0.11
UK	1.03	1.11	0.08
Sweden	0.19	0.25	0.06
South Korea	1.08	1.12	0.04
Spain	0.29	0.26	-0.03
Norway	0.65	0.61	-0.03
Belgium	0.12	0.07	-0.05
US	1.91	1.86	-0.05
New Zealand	-0.63	-0.68	-0.05
Luxembourg	0.76	0.56	-0.20
Finland	-0.09	-0.30	-0.21
Czechia	-0.46	-0.69	-0.22
Türkiye	-0.81	-1.10	-0.28
Estonia	0.01	-0.28	-0.29
Australia	0.34	0.05	-0.29
Austria	0.52	0.21	-0.31
Lithuania	-0.44	-0.77	-0.33
Canada	0.51	0.16	-0.35
Denmark	0.51	0.11	-0.40
Portugal	0.47	0.05	-0.43
Mexico	-0.03	-0.48	-0.46
Japan	1.42	0.87	-0.55
Latvia	-0.24	-0.83	-0.59
Ireland	0.03	-1.17	-1.20

Source: Nachum Blass and Jonathan Plotkin, Taub Center | Data: OECD, 2025

## Teaching workforce<sup>8</sup>

In the education chapter of last year's *State of the Nation Report* (Blass, 2024), we discussed at length the issue of a teacher shortage and showed that the 2024/25 school year data did not change our earlier assessments: in general, Israel's education system does not suffer from a shortage of teachers.<sup>9</sup> There may be shortages in certain schools, localities, or districts, or in particular taught subjects, but these are only localized shortages that do not affect the overall picture. We also showed that in mathematics and English (as a second language) there has been ongoing improvement in the share of teachers who are qualified for the subject at all education levels, in all sectors, and under all supervisory streams, whereas in language arts (Hebrew) there has been a decline. Figure 4 updates these data and points to the continuation of the trends we identified. It should be noted, however, that a portion of the teachers considered as "not trained in the subject" because they were not formally trained to teach it have in fact been teaching it for many years, and their ability to teach it is no less good than that of their younger colleagues who recently began teaching and were trained in the subject.<sup>10</sup>

In last year's chapter, we also pointed out that absence rates have risen sharply in recent years, and that teacher turnover in educational institutions is very high. We assumed that these two facts could also add to the overall sense among both principals and parents that there is an ongoing teacher shortage, and that this feeling could in turn lead to the conclusion that the system is forced to make do with lower-quality teachers, even though, according to objective indicators — education, seniority, and subject match — this is not the case. So how, despite all of the above, can one explain the deep internal conviction in such broad circles that there is a teacher shortage and that teacher quality is declining? Answering this requires thorough, in-depth research. Here, we limit ourselves to a few remarks.

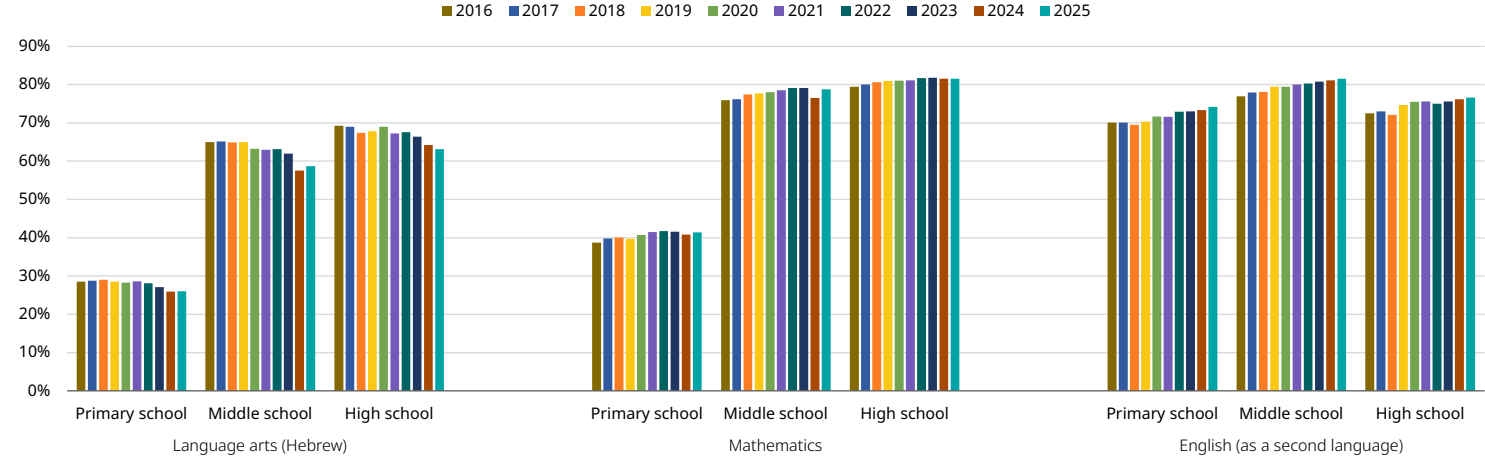
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8 This section was co-authored with Dr. David Maagan of the Central Bureau of Statistics.

9 The same applies to the data from the beginning of the 2025/26 school year, as indicated by Ministry of Education announcements (Trabelsi-Haddad, 2025).

10 For some reason, the view is still widespread that in primary education, academic training in Hebrew and mathematics is not necessary.

**Figure 4. Subject-match rates in language arts (Hebrew), mathematics, and English (as a second language), by education level, 2015/16–2024/25**



Source: Nachum Blass, Taub Center and David Maagan, CBS | Data: CBS (special data handling)

The first concerns the timing of assessing the number of vacant positions and the reliability of reports about a teacher shortage. The sense that there is a teacher shortage in Israel and worldwide is usually based on reports of school principals that receive wide coverage in the media and on social networks, and that appear with increasing frequency at the end of the school year and during the summer break ahead of the opening of the new school year. However, first it should be noted that principals' reports are based only on their impressions, not on objective measures of shortages in teaching staff.<sup>11</sup> Second, the check of whether there are enough teachers should not be conducted at the end of the school year, or even toward the end of the summer break, but rather in the first weeks of the new school year. As evidence, we note that at the end of the 2024/25 school year the Ministry of Education declared a shortage of about 4,000 teachers; two weeks before the start of 2025/26, it already reduced the estimate to about 1,500; and by August 31, it was speaking of a shortage of fewer than 500 teachers — less than 0.2% of all teachers. This is a lower share than in the vast majority of countries examined in *Education at a Glance 2025* (see OECD, 2025, Figure D8.4; Sela, 2025). Thus, it seems that, in most cases, the dire predictions do not materialize, and at the beginning of the school year substitute teachers are found for most of the missing teachers. Moreover, as we showed in last year's chapter, in most schools in Israel at the start of the year there are even more teachers than in the preceding year, and their quality — as measured by education, seniority, and subject match — is no lower than the quality of the teachers who taught the previous year, and generally is even higher.

Another point to consider is that measuring teacher shortages by the number of vacant positions has a conceptual flaw. In any occupation with a large number of employees, at any point in time, there will always be vacancies. Workers retire, die, leave the profession, emigrate, and so on. The question is the vacancy rate at any given point in time, and whether the positions can be filled within a reasonable period of time by workers of similar or higher quality. In education, more than 200,000 teaching staff are currently employed; 2% (4,000 teachers at the end of the school year) and 0.2% (at the beginning of the new school year) is a negligible share and should be viewed as natural turnover rather than a shortage.

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11 The authors of the *Education at a Glance 2025* report also felt it important to highlight this point. See OECD, 2025, p. 488.

Our third remark is that beyond the objective data at the end of the school year, it is quite possible that the sense of shortage principals report stems from their difficulty in recruiting new teachers to replace those leaving, particularly teachers who fit the school's ethos in terms of worldview (for example, religious and national outlook). Naturally, this difficulty is less pronounced in Hebrew State education, which can recruit Arab teachers, teachers trained in religious teacher training institutions, and Haredi teachers who studied in Haredi seminaries.<sup>12</sup>

Figure 5 shows that the share of new teachers who were trained in a different training sector — or, in the terms of Erlich and Gindi (2020), “boundary-crossing teachers” — has been rising in Hebrew State education, which absorbs both Arab teachers<sup>13</sup> and teachers who studied in State-religious and Haredi training institutions. In State-religious education as well, the share of new teachers trained in Haredi institutions has increased. The share of new Jewish teachers working in Arab schools is also rising, but their number is negligible.

The integration of teachers who were trained in a different training sector undoubtedly affects school life in a range of ways, first and foremost for students and teaching teams. At the same time, it cannot be denied that these teachers are an important resource available to the education system in a reality of shortage. We now turn to three additional groups of data that, in our view, refute the claims of a teacher shortage.

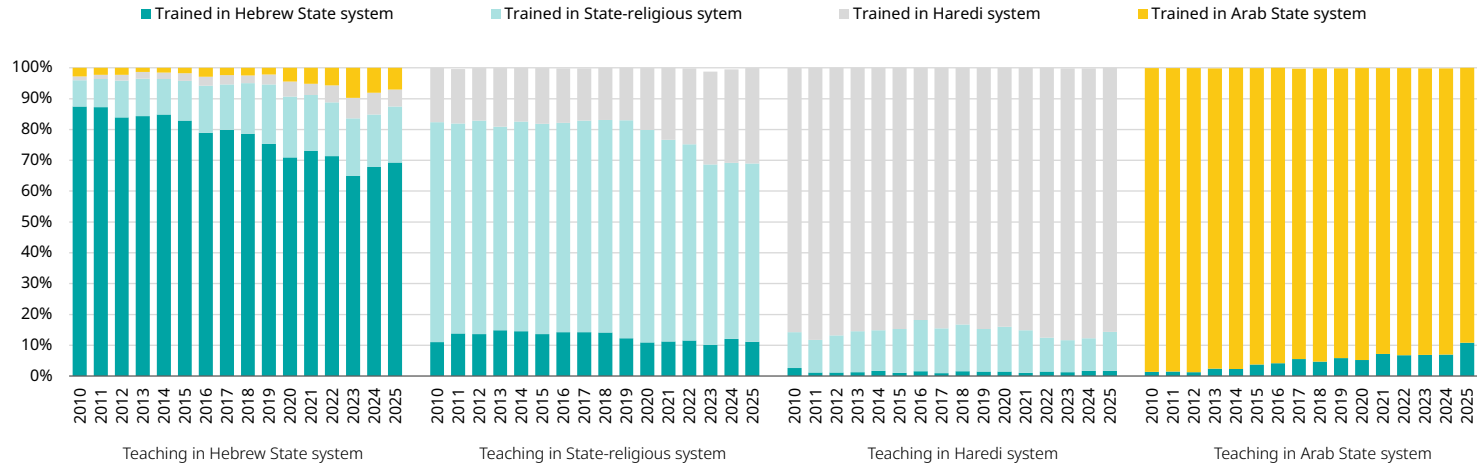
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12 On the other hand, the high share of new teachers trained in Arab and Haredi teacher training institutions who are employed in Hebrew state schools (Maagan & Blass, forthcoming) may indicate that this education sector faces greater difficulty in recruiting teachers to fill vacant positions.

13 For data on the integration of Arab teachers into Hebrew state education, see Appendix Table 1.

**Figure 5. Share of new teachers in the education system, by educational sector and training sector, 2009/10–2024/25**

Percent



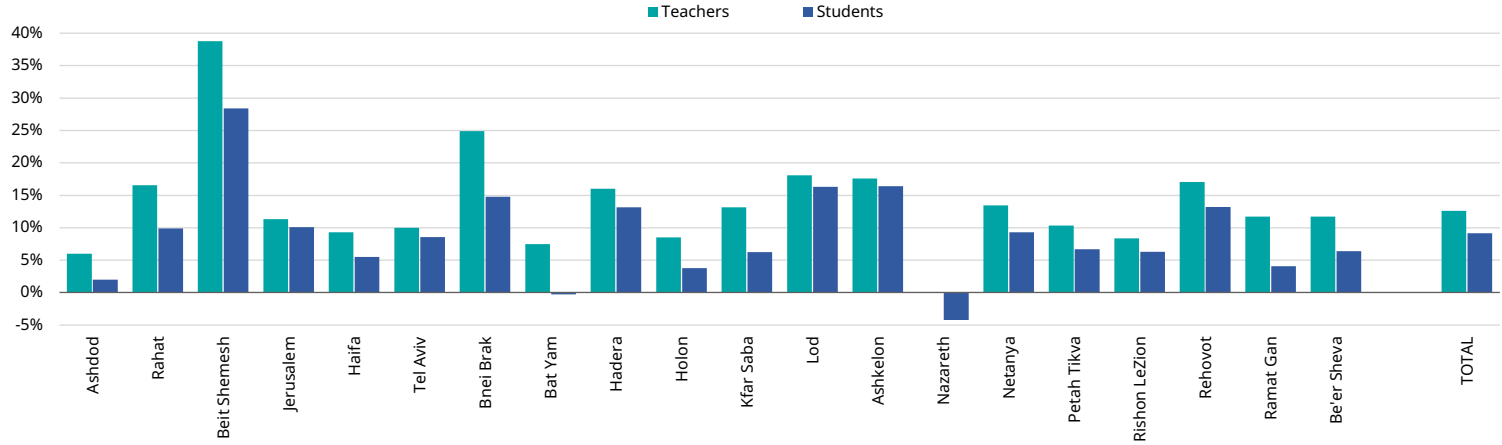
Note: The Arab training sector includes Arab teachers who were trained in academic colleges within Hebrew State education.

Source: Maagan and Blass (in preparation)

## Israel's 20 largest cities

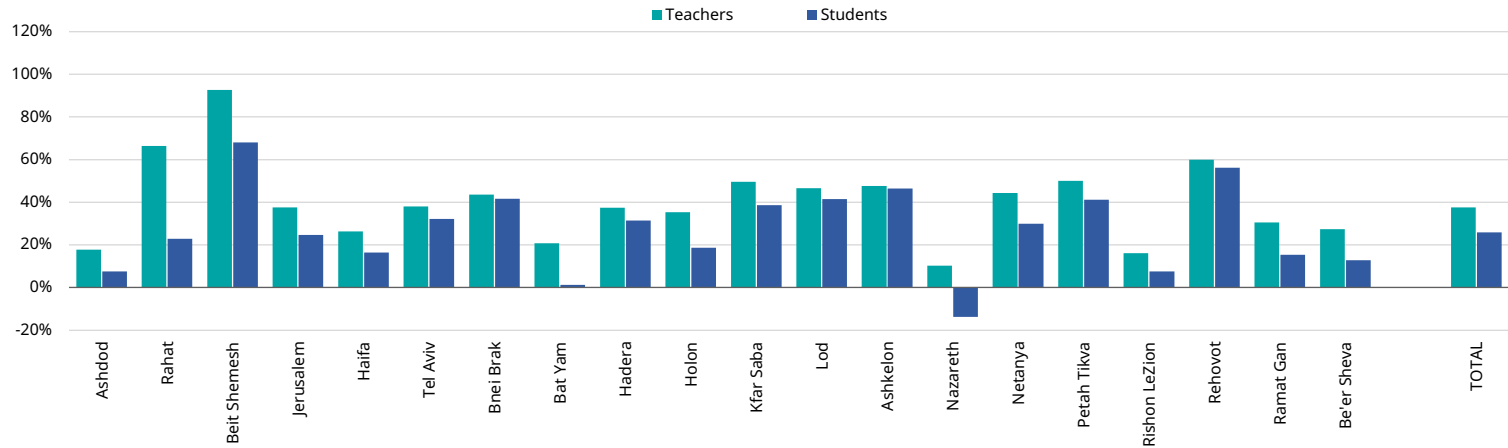
In previous studies examining the question of a teacher shortage, we addressed the issue mainly at the national level, and we examined in more detail shortages by education level, sector, supervisory sector, and subject. Here, we address the issue at the locality level. To do so, we compared growth in the number of teachers with growth in the number of students in the 20 largest cities in Israel. Our working assumption was that in a city where the number of teachers grows faster than, or at a similar pace to, the number of students, there should be no city-level teacher shortage. To address the claim that teacher shortages are a phenomenon of recent years, we conducted the comparison in two versions: one for the 2019/20–2023/24 school years (Figures 6), and the other for 2011/12–2023/24 (Figure 7). The picture that emerges is unambiguous. As Figure 6 shows clearly, in 2019/20–2023/24 (2020–2024) the rate of growth in the number of students did not exceed the growth in the number of teachers in any of the cities examined. When examining the longer period, 2011/12–2023/24 (Figure 7), a similar result emerges: in all cities — except Bnei Brak, where the two rates were roughly identical — the number of students grew at a lower rate than number of teachers. Thus, there is no indication of a teacher shortage. In practice, this was reflected in declines in the average number of students per teacher, students per class, and students per full-time teaching position (as noted, except in Bnei Brak, where the average number of students per full-time position increased).

**Figure 6. Rate of change in the number of teachers and students in Israel's 20 largest cities, 2019/20–2023/24**  
Percent



Source: Nachum Blass, Taub Center and David Maagan, CBS | Data: CBS (special data handling)

**Figure 7. Rate of change in the number of teachers and students in Israel's 20 largest cities, 2011/12–2023/24**  
Percent

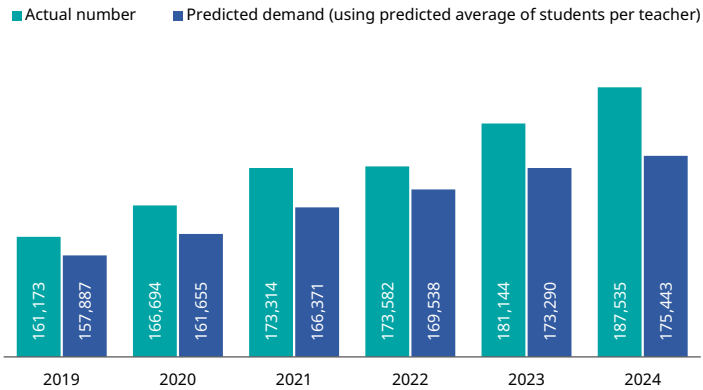


Source: Nachum Blass, Taub Center and David Maagan, CBS | Data: CBS (special data handling)

## Actual teacher supply and projected demand

Another way to examine whether there is a teacher shortage is to compare the actual number of teachers in a given year with projected demand for that year, based on the average number of students per teacher. We did so for the 2018/19–2023/24 school years, both at the overall level (Figure 8) and broken down by the main subjects — language arts (Hebrew), mathematics, and English (as a second language) (Figure 9). To estimate projected demand for teachers in the system as a whole, we relied on a forecast of the average number of students per teacher for those years based on a moving average of the number of students per teacher in 2013/14–2017/18, and did the same for the main subjects. Figures 8 and 9 show that both overall and by subject, actual supply exceeds demand in every year, and the gap has been widening over time.

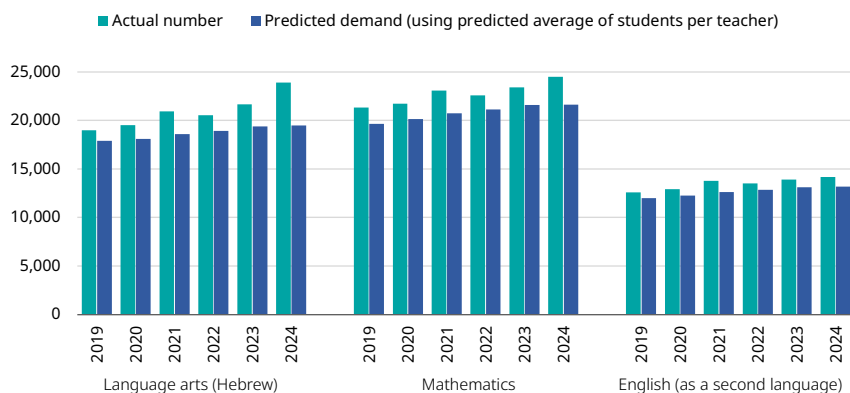
**Figure 8. Actual supply and projected demand for teachers: Simulation for 2018/19–2023/24**



Note: The graph is for school teachers (grades 1–12), not including pre-primary school.

Source: Nachum Blass, Taub Center and David Maagan, CBS | Data: CBS (special data handling)

**Figure 9. Actual supply and projected demand for teachers of language arts (Hebrew), mathematics, and English (as a second language): Simulation for 2018/19–2023/24**

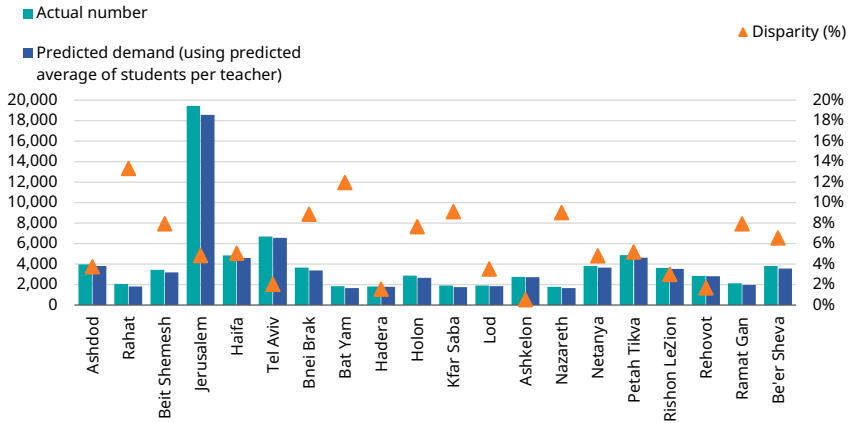


Note: The graph is for school teachers for grades 1–12, not including pre-primary school.

Source: Nachum Blass, Taub Center and David Maagan, CBS | Data: CBS (special data handling)

Figure 10 presents a simulation of projected demand versus actual supply in Israel's 20 largest cities for 2023/24. It clearly shows that in all the cities, actual supply is greater than projected demand.

**Figure 10. Actual supply and projected demand in 2023/24: Simulation for Israel's 20 largest cities**



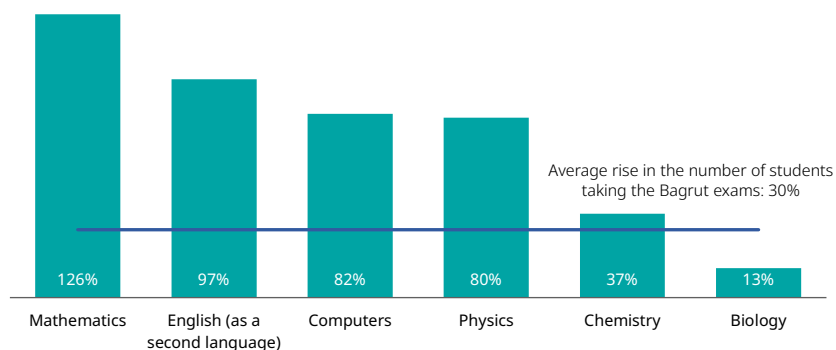
Source: Nachum Blass, Taub Center and David Maagan, CBS | Data: CBS (special data handling)

## The shortage in English teachers and the sciences

Finally, we address the claim that teacher shortages are especially pronounced in English (as a second language) and in the sciences. To assess this claim, we examined the change over a decade — from the 2012/13 to the 2022/23 school years (2013–2023) — in the number of students taking the five-unit Bagrut (matriculation) exams in these subjects, compared with the change in the total number of examinees in these subjects over the same period. As Figure 11 shows, except in biology, the number of students taking the advanced level Bagrut exam increased over this period at a higher rate than the overall number of Bagrut examinees in those years: while the total number of Bagrut examinees grew by about 30%, the number taking five units rose by 126% in mathematics, 97% in English (as a second language), 82% in computer science, 80% in physics, and 37% in chemistry. These results suggest that here, too, there is no teacher shortage, since such a substantial increase in the number of advanced level examinees would not have been possible without opening additional classes and study groups and adding thousands of teachers to teach them.<sup>14</sup>

14 CBS data provided to us indicate that the growth rate in the number of teachers in these subjects was much higher than the growth rate in the number of students.

**Figure 11. Rate of change in the number of students taking the Bagrut exams at the 5-unit level in English (as a second language) and the sciences, 2012/23–2022/23**



Source: Nachum Blass, Taub Center and David Maagan, CBS | Data: CBS (special data handling)

These analyses reinforce a claim we have made repeatedly in the past: at the system-wide level, there appears to be no teacher shortage. Moreover, when localized shortages emerge, the system is able to find solutions, such as recruiting teachers who were trained in other training sectors. In light of the data, it is therefore unclear why all relevant actors — from the Ministry of Education, through the teachers' organizations, to the media — continue to speak of a teacher shortage.

## The Shapira Committee Report: The education system through the lens of special education<sup>15</sup>

The publication of the Shapira Committee's recommendations in March 2025 may prove to be one of the most important events in the history of Israel's education system. In their importance and scope, the recommendations are comparable to those of the Rimalt Commission Report (1971), which led to the major reform that reshaped the structure of the education system in the early 1970s, and to the Dovrat Commission Report (2004), which led to changes in the working arrangements of Israel's teaching workforce. The Shapira Committee was appointed in 2023 by Education Minister Yoav Kish to address the challenges arising from the rapid increase in the number of students eligible for special education services. The committee report reflects a much broader approach, according to which two central conceptions that currently guide Israel's education system must be fundamentally changed. The first gives greater importance to primary and secondary education than to pre-primary education, a conception reflected in the relatively smaller share of the budget allocated to early childhood education compared to other age groups (see Figures 2–3 above). The second favors large classes with a large number of teacher working hours over smaller classes with fewer hours. On the first issue, the report states that the "pyramid" should be turned upside down and greater importance should be assigned to pre-primary education.<sup>16</sup> As for class size, the report recommends reducing class sizes from preschool through grade 9 to an average of 19 students per class, a move that would be made feasible in budgetary terms and in terms of required staffing by reducing the number of working hours per class. Below, we briefly describe the committee's work and focus on the recommendation to limit the number of students in pre-primary school and in grades 1–9 to an average of 19 students per class.

The committee worked in plenary meetings and in thematic subcommittees and, overall, included close to 200 members, along with a steering team composed mostly of Ministry of Education officials. It also included a representative

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15 The author of this chapter served on the Shapira Committee's steering team and participated in all of its dozens of meetings. This chapter refers to parts of the committee's recommendations document. The discussion is presented solely as seen by the undersigned.

16 This document does not address the issue of "turning the pyramid upside down," which merits a detailed discussion of its own.

of the Budgets Department in the Ministry of Finance, a representative of the Federation of Local Authorities, a representative of the Association of Municipal Education Department Directors, and the author of this chapter.<sup>17</sup> The committee's discussions were based, in the vast majority of cases, on data provided by the Ministry of Education, mainly the Economics and Budget Administration and the Special Education Division.

## The reasons for establishing the committee and the principle guiding its work

The committee's main task was to propose ways to address two central challenges: the low inclusion rates of special education students in general education, and the rapid increase in the number of students eligible for special education services, with all the accompanying implications.

- *Low inclusion rates in general education.* The share of students classified with special needs who are integrated into Israel's general education system stands at only 60%, compared with more than 90% in most high-income countries. Despite the benefits of inclusion for students and for society as a whole, as demonstrated in many studies, there has been no noticeable improvement in inclusion rates for at least a decade — contrary to the recommendations of the Dorner Committee and contrary to the hopes of those who initiated Amendment No. 11 to the Special Education Law.<sup>18</sup>
- *The rapid growth in the share of students eligible for special education services.* The pace of growth of the population of diagnosed students in Israel has virtually no parallel in almost any country in the world.<sup>19</sup> This growth creates difficulties in certain localities in their recruiting of teaching and therapeutic

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17 The thematic subcommittees and the plenary sessions also included representatives from other government ministries, teachers' organizations, and parent associations, as well as senior academics, and representatives of Ernst and Young.

18 See the Dorner Committee Report ([The Public Committee for Examining the Special Education System in Israel](#)); and the [Special Education Law \(Amendment No. 11\)](#), 5778–2018.)

19 Scotland is an exception in this context. It was recently reported that the share of students classified as having special needs in the country has nearly doubled over the past decade — from 22.5% in 2015 to 43% in 2025 (compared with 19.6% in England in 2025). This share has been rising since the 2004 law aimed at increasing inclusion was enacted (BBC, 2025).

staff in pre-primary schools and post-primary schools, and accounts for a growing share of the Ministry of Education's budget. In 2025 alone, the number of students classified with special needs increased by 20% (Nutkin, 2025). In the same year, the special education budget grew by 26% relative to the 2024 budget (compared with only a 7% increase in the Ministry of Education's overall budget), reaching about 20% of the total education budget, while special education students comprise between 10% and 12% of the students in the system.

At a very early stage of the committee's work, the chair and its members determined that *the only way to address these challenges is by improving the responses and the educational environment in general education*. "As long as there are gaps in the services provided to students eligible for special education services in general education compared with the services provided to them in separate settings, as is the case today, no bureaucratic measures by one committee or another will prevent parents of students eligible for special education services from preferring separate education. This failed in the past and will fail in the future as well" (Shapira Committee, 2025, p. 5).

In other words, in the committee members' assessment, as long as the education provided in general education does not improve, more and more parents of children with special needs will prefer to send them to separate settings. If general education improves, special education students with relatively high levels of academic and social functioning<sup>20</sup> will choose to study in a general classroom with their neighborhood peers, close to where they live. This spiral — the rapid growth in the population of special education students and the budgets and staffing required to serve them — has implications both for the special education system, which is currently occupied by students with relatively high functioning special needs who could study in a general classroom, and for the general education system, which must provide support to special needs students integrated into large classes without sufficient professional support.

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20 The difficulty is that today there is no tool for measuring academic and social functioning. After Amendment No. 11 to the Special Education Law was enacted, an attempt was made to develop such a tool by RAMA (the National Authority for Measurement and Evaluation in Education), but it was not successful.

When formulating its recommendations, the committee members had only one hard constraint in mind: the shortage in personnel. Other constraints — such as budgetary, legal, or professional constraints, difficult as they may be — were viewed as constraints that can and should be overcome. Although almost every committee member had reservations about one recommendation or another, there was broad agreement that all of the recommendations should be adopted as a single package.

## Recommendations to reduce class size

At the very beginning of the steering team's work, two documents that raised the issue of class size were brought before it. The first document, placed on the discussion table on July 6, 2023, was written at the Taub Center.<sup>21</sup> It recommended *reducing class size while simultaneously reducing the number of working hours allocated per class, which would make it possible to implement the move without adding teachers*. The second document was prepared by the Ministry of Education and submitted to the committee on August 1, 2023.<sup>22</sup> It included an analysis of the current situation, a review of how four countries around the world address various special education issues, and concluded by presenting several solutions, including reducing classes to a maximum size of 25 students, but it did not address the question of the number of working hours currently allocated per class. Two further studies produced in Israel on class size were submitted to the committee. The first was a review of research on class size and the student-teacher ratio prepared by the Ministry of Education, which found, among other things, that most studies do not support the claim that there is no relationship between class size and academic achievement (Asher, 2014, p. 7). The review also stated that for class size reduction to be effective it must be accompanied by investment in improving teaching practices and adapting them to teaching in smaller classes, and that there is no benefit from

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21 The document, *Can Learning in Small Classes Be Made Routine?*, was written by me on the basis of another study published in 2020 on the education system during the COVID-19 crisis (Blass, 2020), and was presented in a meeting with the Director General of the Ministry of Education, Dr. Dalit Stauber, on February 15, 2023.

22 The document addressed primary and lower secondary (middle school) education. In the slide dealing with the implementation timeline, preschools were also mentioned, with implementation beginning three years later. This document served as the basis for the alternative that the Ministry of Education ultimately submitted to the committee in March 2024.

only a minor reduction in class size; rather, it is preferable to reduce classes to 20 students or fewer. The second study submitted to the committee was a chapter from a book published at the Taub Center several years ago, dealing with class size in schools (Ayalon et al., 2019).

After many discussions, the committee formulated a document presenting four alternatives relating to primary and middle school students. The first alternative was the one proposed originally by the Ministry of Education, which in its final version also included an estimate of the cost of full implementation: NIS 16.5 billion, of which NIS 9.5 billion was earmarked for employing additional teachers and NIS 7 billion for building 7,000 classrooms.<sup>23</sup> The alternative included the following components:

- *Reducing the maximum number of students per class* in primary education from 32 to 25 students, and in lower secondary (middle school) from 37 to 25 students per class.
- *Reducing the basic allocation of working hours in primary education* from 32 weekly hours to 28, and in lower secondary (middle school) from 34 to 30 weekly hours.
- *Eliminating a large share of special education classes* within general schools.
- *Adding 20 weekly hours* with a second teacher in the classroom.<sup>24</sup>
- *Adding 2 weekly hours* for educational counseling.
- *Adding teacher aides*, one aide position for every four classes in the school.
- *Doubling inclusion hours* (from 7.7% to 15%).
- *Moving to a five-day school week*.

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23 Throughout the committee's discussions, the Ministry of Education estimated the cost of building a new classroom at NIS 1 million. At a later stage, it was argued that the cost is in fact higher. The committee's calculations were based on the estimate of NIS 1 million per classroom.

24 This addition is equivalent to more than half of a teacher position (a full-time position is 36 weekly hours), and in budgetary terms amounts to about NIS 180,000 (according to data from the Economics and Budget Administration, in the 2022/23 school year the weighted cost of one weekly instructional hour in primary and lower secondary education was NIS 9,041).

This proposal, of course, had many positive aspects, such as reducing class size and thereby improving the response to students, improving student well-being, improving teachers' well-being and quality, expanding the scope of professional support, and equalizing conditions in general education with those in special education — making general education more attractive than separate special education settings. At the same time, implementing the proposal entails a massive increase in the number of teachers, with very high budgetary costs, as well as high construction costs.

The three other alternatives differed from the Ministry of Education's alternative mainly in that they did not include the most expensive component: adding 20 weekly hours per class. They differed from one another primarily in the extent of class size reduction and in components related to how special education students would be included in general schools. The absence in the proposal of an added 20 weekly hours per class made these alternatives feasible to implement in terms of personnel and wage costs, and their main budgetary component was construction costs, which rose as the maximum number of students per class declined.<sup>25</sup>

Traditionally, the main argument against reducing the number of students per class has been the high cost of such a move, consisting of construction costs and the cost of employing thousands of additional teachers. Another argument is that the increased demand for teachers could lower the overall quality of the teaching workforce, leading to lower academic and educational outcomes, and to the movement of stronger teachers from schools serving weaker populations to schools serving more advantaged populations — a process that would deepen educational gaps. However, the Taub Center document — whose underlying ideas were formulated during the COVID-19 period against the backdrop of the demand for social distancing — showed that it is possible to reduce class size using the existing workforce, without a massive increase in the number of teachers.

As for classroom construction, it appears that the claim about high costs is also greatly overstated, because it is based on a fundamentally mistaken perception according to which construction costs are simply the result of multiplying the number of additional classrooms needed by NIS 1 million, the estimated

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25 None of these versions dealt with children ages 3–5. These were dealt with in another part of the report.

cost of building a new classroom according to the Ministry of Education. This is an inflated estimate for several reasons. First, the cost of building a new classroom includes components beyond construction itself, such as planning, site development, building ancillary rooms, sports facilities, laboratories, and the like; but because this usually involves existing schools, some of these components are not required. Second, in many schools the number of students has declined, freeing up classrooms that can be used to implement the move. Third, the floor area of new classrooms can be reduced, since they are intended to accommodate an average of about 20 students rather than close to 30, like most classes today. Indeed, the estimate reached by the committee, which was based in part on an independent architectural assessment, was far lower than the initial estimates.

Ultimately, after many discussions and deliberations, the committee recommended reducing classes to an average size of 19 students per class in primary education and in lower secondary (middle school) (Appendix Table 2) and in pre-primary school. The move would be accompanied by a substantial reduction in the basic allocation of working hours per class — from 31 to 25 in primary education and from 34 to 28 in lower secondary (middle school) as well as a reduction in the extra hours that are allocated to schools — and therefore would not require employing additional teachers.<sup>26</sup> The cost of adding the 20,000 school classrooms and the additional 8,000 pre-primary school classrooms required to implement the plan was estimated at about NIS 14 billion. This is not a trivial sum, but in view of the expected educational benefits and the long-term economic savings, most committee members believed the investment is well justified.

If it is worthwhile to invest NIS 20 billion in a light rail line from Petah Tikva to Bat Yam, it is certainly worthwhile to invest NIS 14 billion in education infrastructure. As the chairman of the committee stressed, this recommendation reflects a revolutionary shift in thinking, expressing the understanding that reducing class size does not necessarily require expanding the system's workforce.

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26 It still requires some addition of pre-primary school teachers but the report points out how this can be done.

## Summary

The education system is currently facing challenges in a variety of areas. However, as the title of this chapter suggests — *On Real and Perceived Crises in the Education System* — not every issue that concerns the education system, in our view, deserves to be called a crisis. In this chapter, we addressed two real crises: the enormous and disproportionate growth in recent years in the number of special education students and in the budget allocated to them, whose share of the Ministry of Education's total budget has been rising at a troubling pace; and a smaller but still serious crisis — the growing share of explicit and hidden reserves in the Ministry of Education's budget, accompanied by a lack of transparency and by the absence of monitoring and oversight.

Alongside this, we discussed at length the issue of a teacher shortage, which for years has remained on Israel's public agenda. As we have shown, none of the indicators used in the research literature to identify teacher shortages are present in Israel, and therefore, in our view, this is no more than a perceived crisis. There is no system-wide teacher shortage in Israel. Moreover, our checks by city and by subject, as well as the simulations we conducted comparing actual teacher supply with projected demand, found no such shortage. To understand why, nonetheless, a sense that there is a teacher shortage is widespread among large parts of the public, we raised several hypotheses. Among other things, we noted that media coverage is often driven by reports from school principals who assess the situation at too early a stage — at the end of the school year and during the summer break — whereas the assessment should be made after the school year begins. We also raised the possibility that, in light of the findings on the rising share of teachers entering a teaching sector different from the one in which they were trained, particularly in Hebrew State and State-religious education, principals' reports may refer specifically to a shortage of teachers trained in institutions that align with the school's ideological and religious ethos.

Finally, we briefly reviewed the recommendations of the Shapira Committee, which examined education through the lens of special education, focusing on its recommendation to limit class size from pre-primary through grade 9 to an average of 19 students per class. The committee's recommendations are undoubtedly revolutionary and could serve as a foundation for addressing the difficulties arising from the growing share of special education within Israel's education system.

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**Appendix Table 1. Integrating Arab teachers in the Hebrew State education system**

	Arab teachers in Hebrew State education — total	Percent out of teachers in Hebrew State education	Of these: new teachers	Percent of new teachers in Hebrew State education
2010	343	0.6%	64	2.1%
2011	418	0.6%	81	1.8%
2012	491	0.7%	84	1.7%
2013	533	0.8%	60	1.1%
2014	604	0.8%	78	1.5%
2015	675	0.9%	101	1.9%
2016	1,104	1.3%	288	3.9%
2017	1,253	1.5%	202	3.0%
2018	1,435	1.6%	211	3.2%
2019	1,609	1.8%	230	3.6%
2020	2,013	2.1%	396	5.5%
2021	1,683	1.9%	329	5.2%
2022	2,065	2.3%	397	6.3%
2023	2,703	2.9%	628	9.1%
2024	3,108	3.3%	514	7.5%
2025	3,984	4.0%	468	6.9%

Source: Maagan and Blass (in preparation)

## Appendix Table 2. The recommendation that was adopted by the Shapira Committee

Option 4 — Improving general education alongside a large-scale initiative focused solely on high incidence needs	
Upgrading service levels in regular schools + reducing bureaucracy	Small classes — a maximum of 23 students per class, a range of 17–24 (average 19.5 compared to 27 in primary and 33 in middle schools)
	Retaining permanent specialist teams in district level support centers or in schools (maintaining the <i>existing special education resource baskets</i> )
	School permanent specialist teams (about 4 positions on average) — a two-fold increase in integration hours (from 7.7% to 15%)
	Flexible additional assistance like: an additional professional position per school / 2 educational assistants per school / flexible district-level compensation basket
	Permanent assistants team per school (1 assistant position for every 4 classes)
	Standardized educational counseling in every school — 2 hours per class (+ 1 additional hour + 1 hour pooling of Nurture index hours)
	Streamlining processes — canceling most committees and reducing bureaucracy
Key sources and changes in special education and in general education	Consolidating all special classes in general schools <i>for high incidence needs only in the first phase</i>
	Consolidating all individual resource baskets for <i>high-incidence needs only, including mental health conditions</i>
	Keeping special education schools for the most complex cases
	Reducing basic weekly hours per class (from 31 in primary schools to 25, and from 34 in middle schools to 28)
	<i>Converting long-school day hours into an after school care model</i>
	Converting all individual tutoring hours into frontal teaching hours (average of 4.5 hours)
	Moving to a 5-day school week
<p>Budgetary implications of full implementation (before future reductions in special education): Budget-neutral on an ongoing basis; requires construction of about 10,000 classrooms, at a cost of about NIS 10 billion</p>	

Source: Shapira Committee, Interim Report (internal report)





## *Executive Summary*

# **Beyond Capacity: The Relationship Between Preschool Class Size and Special Education Participation**

Sarit Silverman and Nachum Blass

Overcrowding in general preschools leads many parents of children with special needs to enroll them in separate special education frameworks — a phenomenon that is seen mainly in Hebrew State education and in socioeconomically strong local authorities. The study's authors call on policy makers to reduce class sizes in the general preschool education system in order to expand integration opportunities for children with special needs.

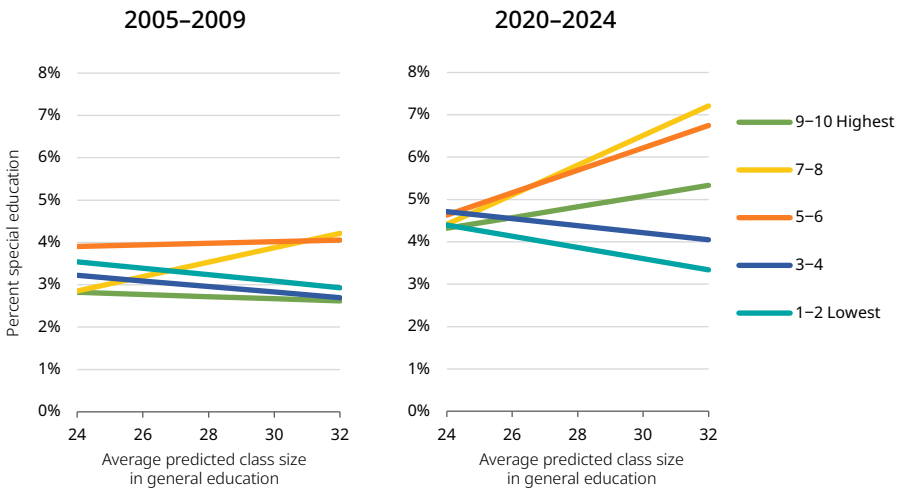
The study, which examined the phenomenon between 2005 and 2024, reveals a shift in the relationship between average preschool class size in local authorities and the share of children enrolled in separate special education frameworks, with significant differences between local authorities at different socioeconomic levels and between sectors and supervision types. This trend, which was nearly nonexistent at the beginning of the period under review (2005–2009), has expanded steadily over the past two decades, and is particularly evident in Hebrew State education and in middle- to high-income local authorities. For example, between 2020 and 2024, the share of students enrolled in separate

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\* Dr. Sarit Silverman, Senior Researcher, Taub Center for Social Policy Studies in Israel. Nachum Blass, Principal Researcher and Chair, Taub Center Education Policy Program. This study was first published in July 2025 and is available on the Taub Center [website](#).

frameworks in Hebrew State education ranged from 5.5% in localities with the smallest preschool classes to nearly 8% in those with the largest classes, compared to much lower rates in other sectors and supervisory authorities. In more affluent local authorities (clusters 5–8), enrollment rates reach 4.5%–7%, compared to approximately 3%–4% in less affluent areas.

### Relationship between preschool class size and special education enrollment, by socioeconomic status and group, 2005–2009 versus 2020–2024



Source: Sarit Silverman and Nachum Blass, Taub Center | Data: Ministry of Education

According to the researchers, the increase in enrollment in separate special education preschools undermines the Ministry of Education's efforts to increase the share of students with special needs integrated into general preschools. They call on the Ministry to act without delay to reduce the average number of children in general education preschools from 30 today to 19, as recently recommended by the Shapira Committee.

The researchers further note that smaller preschool classes can promote meaningful inclusion, which is an important educational and social goal, while also creating economic efficiency by reducing the need for costly separate frameworks. However, it is important to emphasize that the lower participation rates in separate frameworks observed in weaker local authorities and in Arab and Haredi education reflects more limited access to separate settings, rather than lower demand. Therefore, alongside expanding inclusion opportunities, it is essential to ensure equitable access to special education services across all population groups. Reducing class sizes in general education preschools has a dual benefit: it creates higher-quality learning environments for all children and reduces referrals to separate special education frameworks.





## *Executive Summary*

# The Preschool Special Education Expansion Problem: Numbers, Trends, and Disparities

Sarit Silverman and Nachum Blass

Findings from an in-depth study on the special education crisis in Israeli preschools from the 2020/21 to 2023/24 school years reveal a dramatic surge in the number of children receiving special education services, alongside stark disparities across educational streams and socioeconomic clusters. This is the first comprehensive study to focus specifically on preschool-age children — the most critical period for early intervention. The study authors identify specific areas requiring immediate policy reform.

### **Sharp rise in special education enrollment, while general education declines**

The research reveals a striking increase in children receiving special education services during the study period — from approximately 42,000 in 2020/21 to approximately 57,000 in 2023/24. In just four years, the number of children receiving special education services jumped by 36%. This surge far outpaces overall population growth during the same period and occurs alongside

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\* Dr. Sarit Silverman, Senior Researcher, Taub Center for Social Policy Studies in Israel. Nachum Blass, Principal Researcher and Chair, Taub Center Education Policy Program. This study was first published in November 2025 and is available on the Taub Center [website](#).

a 3% decline in general education preschool enrollment (not including inclusion students). According to the researchers, this growth reflects not only demographic shifts but also systemic barriers in identifying and serving children with special needs.

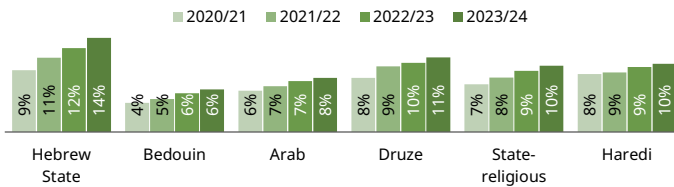
## Despite inclusion policies, most children with special needs still learn in separate settings

During the study period, inclusion of children with special needs in general education preschools through individualized support doubled. Nevertheless, the researchers emphasize, separate special education preschools remain the primary track, serving approximately 50% of children who receive special education services.

## Systemic inequality: severe inequalities in special education participation across educational streams

The research findings show that 60% of children in separate special education preschools are in the Hebrew State system, compared to only 34% of general education students — a significant overrepresentation indicating disparities in access to these services across educational streams. In contrast, other streams are underrepresented and rely more heavily on institutional support — a trend that may stem from shortages of separate special education facilities, or limited access to diagnostic services.

### Trends in special education preschool registration by sector and educational stream

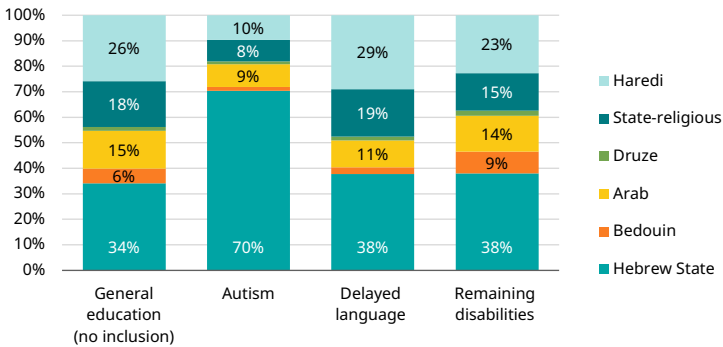


Source: Sarit Silverman and Nachum Blass, Taub Center | Data: Ministry of Education

## Dramatic disadvantage in autism diagnosis and services

70% of students diagnosed with autism spectrum disorder and receiving special education services are in the Hebrew State system — predominantly from middle to high socioeconomic clusters, with minimal representation from disadvantaged areas. According to a recent Taub Center study on language developmental milestones, children from low socioeconomic backgrounds face significantly higher risk for language delays. The researchers point to a troubling *double disadvantage*: populations at highest risk for language and developmental delays are also those least represented in special education services.

### Distribution of preschoolers by sector and educational stream and disability type compared to general preschoolers, 2023/24



Source: Sarit Silverman and Nachum Blass, Taub Center | Data: Ministry of Education

### **Among the recommendations:**

- Strengthening coordination between the Ministry of Health and the Ministry of Education to enable continuous developmental tracking from birth through preschool entry.
- Using Tipat Halav data for early prediction of educational needs and identification of at-risk populations.
- Expanding access to diagnostic services and early intervention in underserved areas to reduce gaps in diagnosis and support.



## *Executive Summary*

# **The Sources of Budget Gaps in the Official Primary Education System**

Nachum Blass and Haim Bleikh

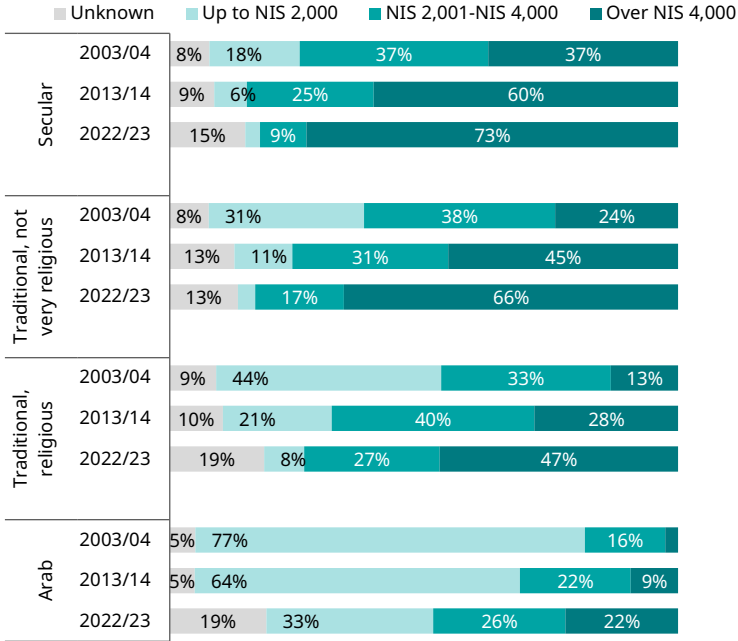
This study examined the reasons for gaps in per-class and per-student funding in the primary education system between Hebrew State, State-religious, and Arab State education between 2014 and 2023. The study examined the main factors affecting school funding, including the school Nurture index, school size, extended school days, and the existence of separate classes for students with special needs, and assessed the extent to which these factors influence differences in funding between schools across different sectors and types of supervision.

*The Nurture index.* The Nurture index ranks schools according to the average socioeconomic status of their students. The higher the Nurture index — that is, the weaker the population — the greater the allocation per class and per student. During the period examined the socioeconomic status of the religious population in Israel improved more than that of other populations. Since most of this population's children are educated in State-religious schools allocations to State-religious education decreased and this served to narrow the funding gaps between State-religious and Hebrew State education.

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\* Nachum Blass, Principal Researcher and Chair, Taub Center Education Policy Program. Haim Bleikh, Researcher, Taub Center for Social Policy Studies in Israel. This study was first published in March 2025 and is available on the Taub Center website.

### Distribution of income per capita in coupled households



Note: The Social Survey does not allow an examination by household. Thus, for calculation purposed, married men aged 25-54 were analyzed.

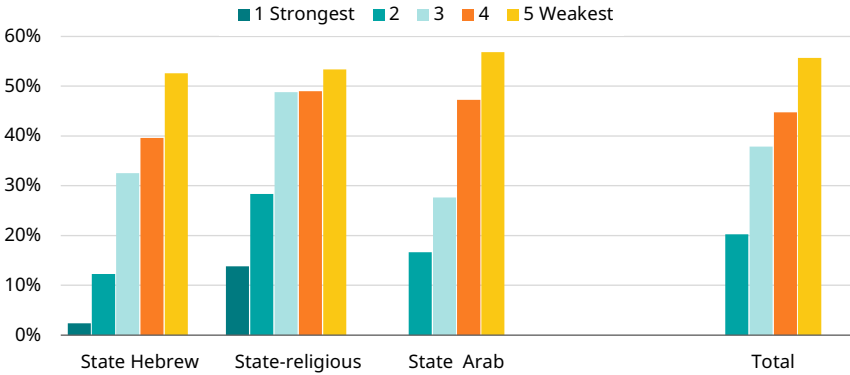
Source: Nachum Blass and Haim Bleikh, Taub Center | Data: CBS, Social Survey (various years)

*School size.* The smaller the school, the higher the allocation per class — and even more so the allocation per student. The reason is that larger institutions tend to have classes with more students on average; since under the funding method most of the budget is contingent on the number of classes rather than the number of students, the per-student allocation in small institutions is higher. The study also shows that over the period there was a marked reduction in the number of students per class, and today there are almost no classes with more than 36 students, and the number of classes with 32–36 students is also quite small.

*Special education.* In general, the mere presence of separate special-education classes does not substantially increase average spending per class compared with schools that do not have such classes. However, because special education classes have few students, the per-student allocation increases substantially.

*Long school day.* A school's participation in the long school day program provides a substantial addition of teachers' working hours, which is reflected in higher funding both per class and per student. The long school day is implemented mainly in schools with a high Nurture index.

**Share of schools participating in the long school day program, by sector and supervisory authority and by Nurture index, 2023**



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

*Sector and supervisory authority.* The impact of this factor is expressed mainly through the addition of prayer hours and rabbi hours in State-religious education, and the addition of teaching hours in Arab State education. Additional hours in the Arab State system are according to the various five-year plans for this sector.

*Despite the narrowing of gaps, Arab State education continues to receive lower funding than Jewish education, and State-religious education receives higher funding than the rest of the system.*

According to the study's results, over the period examined the gaps between the sectors and the different supervisory authorities narrowed. The multivariate analysis indicates that:

- The gap in *per-class funding* between Hebrew State education and State-religious education narrowed from about 5% at the beginning of the period to less than 2% in recent years; in *per-student* terms, it narrowed from 9% to less than 3%.
- The gap between State-religious education and Arab State education in *per-class funding* narrowed until 2021, but then returned to its level at the beginning of the period. In *per-student funding*, the gap narrowed over the period from about 15% to about 12%.

According to the study's authors, Nachum Blass and Haim Bleikh, there is a clear trend toward narrowing gaps across different parts of the education system in per-class and per-student allocations. However, contrary to the common public perception, the contribution of sector and supervisory authority to explaining differences in funding was already quite low a decade ago, and it has continued to decline over the years. It is also important to understand that Israel's education system is funded mainly according to transparent and publicly available funding formulas. Yet because every funding formula reflects a particular educational and social worldview, even when it is based on ostensibly explicit rules, it still allows certain population groups to be prioritized over others.



## *Executive Summary*

# The Sources of Budget Gaps in the Middle School System

Nachum Blass and Haim Bleikh

This study examines the level of funding allocated by the Ministry of Education to middle schools across different sectors and supervisory streams, and asks whether any group receives preferential treatment. The findings show that despite a substantial narrowing of funding gaps between the Hebrew and Arab education systems in recent years, significant disparities between sectors persist. This study is the third in a series examining transparency and equity in the public funding of Israel's education system.

The study focuses on the years 2014–2023, a decade marked by major developments that affected the education system, including new wage agreements and the launch of the Gefen program (Administrative Pedagogical Flexibility), which channeled considerable resources to all schools.

## **A substantial narrowing of gaps between Hebrew and Arab education, and stability within the Hebrew education sector**

The study finds that after controlling for key explanatory variables — sector and supervisory stream, the Nurture Index, school size, and the share of special education classes (all of which underlie the Ministry of Education's funding formulas) — the funding gaps between Hebrew State and State-religious schools remained nearly unchanged over the period examined.

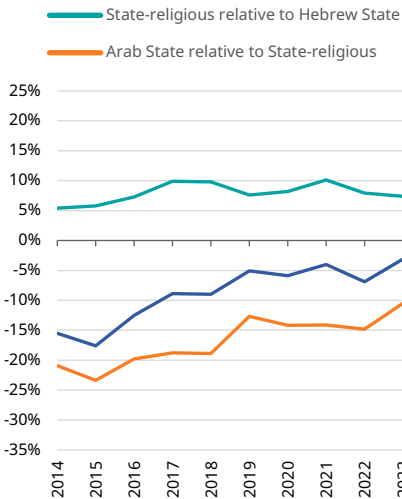
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\* Nachum Blass, Principal Researcher and Chair, Taub Center Education Policy Program. Haim Bleikh, Researcher, Taub Center for Social Policy Studies in Israel. This study was first published in November 2025 and is available on the Taub Center [website](#) (in Hebrew only).

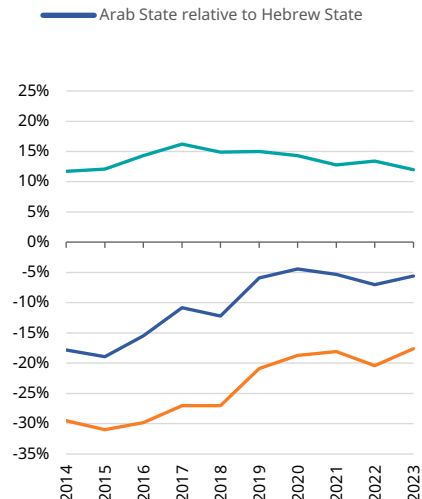
In per-class funding, the gap increased from 5% to 7% (peaking at about 10%), while per-student funding remained around 12% (peaking at about 16%). Between the Arab State sector and the Hebrew State sector, per-class funding gaps shrank from 15% to 3%, and per-student gaps fell from 18% to 6%. Compared with the State-religious sector, the Arab sector's gaps narrowed from 21% to 11% in per-class funding and from 29% to 18% in per-student funding.

### Per-student and per-class budgeting gaps in middle schools, by population sector and supervisory authority, 2014–2023

a. Per-class budgeting gap



b. Per-student budgeting gap



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

## Questions about the principles guiding the funding formulas

The main reasons for changes in the funding gaps between Jewish and Arab schools are improvements in the socioeconomic profile of students in the State-religious sector, alongside a decline in school size and an increase in the share of special education classes in the Arab sector. With regard to the origins of the gaps across sectors and supervisory streams, the study finds that while *the explanatory variables consistently account for a large share of the per-student funding gaps, their ability to explain per-class funding gaps is low — and has declined over time.*

According to the researchers, this low explanatory power for per-class funding is troubling. If the gaps cannot be attributed to the official funding formulas, it may indicate that the allocations are influenced by external considerations that are not necessarily related to the characteristics of students or schools.





## *Executive Summary*

# Educational Trends in the Jewish Population: Long-Term Patterns by Ethnic Groups

Haim Bleikh and Gil S. Epstein

The ethnic divide has been, and remains, one of the most charged topics in Israeli discourse. This study examines educational gaps among Israel's Jewish population from different origin groups — those of Asian/African origin, European/American origin, Ethiopian immigrants, and immigrants from the former Soviet Union (FSU). The study focuses on trends in education levels, higher education, and academic study choices, based on data spanning three decades (1995–2023). The findings show that the education level of the Jewish population has risen over time, but the changes were larger among origin groups that historically had lower levels of education.

### **Rising education levels across all origin groups, at an especially high pace among Asian/African origin and Ethiopian immigrants — but gaps with European/American origin remain large**

- In the mid-1990s, there were large education gaps between individuals of European/American origin and those of Asian/African origin groups (first- and second-generation), as well as between Israeli-born individuals with one parent born in Israel and the other in Europe/America, and those with one parent born

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\* Haim Bleikh, Researcher, Taub Center for Social Policy Studies in Israel. Prof. Gil S. Epstein, Principal Researcher and Chair, Taub Center Labor Market Policy Program; Department of Economics, Bar-Ilan University. This study was first published in August 2025 and is available on the Taub Center [website](#)

in Israel and the other in Asia/Africa (the *2.5 generation*); 89% of Ethiopian immigrants had no Bagrut (matriculation) certificate; among FSU immigrants, the shares with an academic degree and a post-secondary diploma were the highest (44% and 23%, respectively).

- Three decades later, gaps between origin groups have narrowed due to the consistent expansion of higher education in the population (except among immigrants from the FSU), especially among individuals of Asian/African origin (first- and second-generation) and Israeli-born with one parent from Israel and one from Asia/Africa. Among Ethiopian immigrants, whose starting point in the mid-1990s was the lowest, significant changes occurred: a sharp rise in Bagrut eligibility, alongside an increase in the share holding an academic degree (from 3% to 12%). Nevertheless, the researchers emphasize that the education levels of Ethiopian immigrants are still significantly lower than those of individuals from other origin groups.

## **Expansion of higher education: the increase is especially pronounced among women**

- Between 1995 and 2023, the share of those with an academic degree rose from 22% to 45%. Among women, the increase was greater (from 22% to 50%) than among men (from 22% to 39%).
- The representation of European/American origin groups (first- and second-generation), Israeli-born with one parent from Israel and one from Europe/America, and immigrants from the FSU among degree-holders remains the highest, but it has declined over the years due to the more rapid growth of education among the other origin groups: Asian/African origin (first- and second-generation), Israeli-born with one parent from Israel and one from Asia/Africa, Israeli-born of mixed ethnic origin, and Ethiopian immigrants.
- In the mid-1990s, immigrants from the FSU had a very high share of advanced degree holders among all academics (69% among women and 75% among men). The relative share of advanced degree holders was also high among those of European/American origin.
- Three decades later, the data show a substantial decline in the share of advanced degree holders among all academics in the FSU group (from 72% to 46%). Many of the immigrants with advanced degrees who arrived

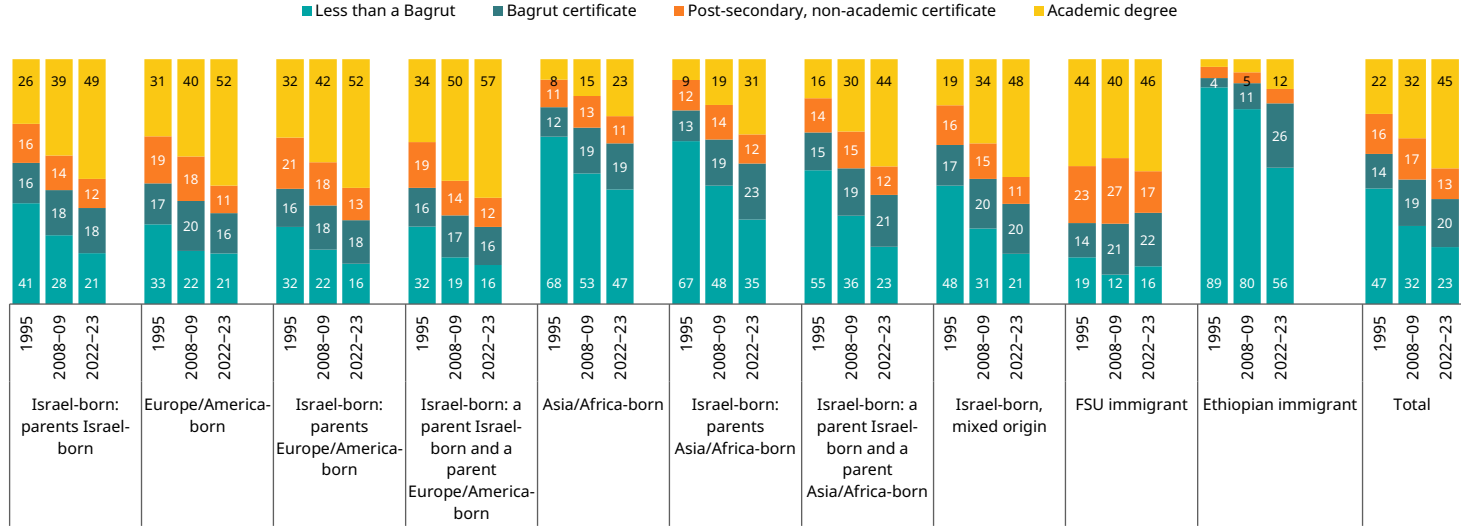
in the 1990s have reached retirement age, and a younger generation has taken their place, with educational characteristics more similar to those of Israeli-born Jews. Rapid growth in advanced degree attainment has been particularly notable among Israeli-born individuals with parents from Asia/Africa, Israeli-born with one parent from Israel and one from Asia/Africa, Israeli-born with one parent from Israel and one from Europe/America, and Israeli-born of mixed ethnic origin.

### **Individuals of European/American origin and FSU immigrants are more likely to pursue studies in medicine and STEM, while those of Asian/African origin are more likely to study education, law, and business administration**

- The psychometric scores of students whose fathers are of Asian/African origin are lower than those of students whose fathers are of European/American origin, and therefore their chances of being admitted to high-earning, prestigious fields of study are lower. However, the data also indicate a narrowing of the score gap between examinees whose fathers are of Asian/African origin and those whose fathers are of European/American origin or Israeli-born.
- Immigrants from the FSU are markedly overrepresented in medical and STEM fields (science, technology, engineering, and mathematics) compared to the other origin groups.
- Among those of Asian/African origin and Israeli-born with one parent from Israel and one from Asia/Africa, there is a greater tendency to pursue fields such as business administration, and to some extent, law. This trend is more pronounced among men.
- People of Asian/African origin enroll in education and teaching fields at higher rates, which are traditionally predominantly female fields.
- Among third-generation Israeli-born, the share expected to pursue medical and STEM fields rose from 24% to 27%, and this upward trend was seen among both men and women.

## Predicted probabilities of education levels, ages 25–64

Percent



Note: The predicted probabilities are calculated based on a multivariate analysis (multinomial regression), controlling for gender and age.

Source: Haim Bleikh and Gil S. Epstein, Taub Center | Data: CBS, Labor Force Survey (various years); Population Census 1995

The researchers note that closing the education gaps between origin groups is a long and continuous process, and will likely take another generation or two to see further narrowing. Closing educational gaps depends on two main factors: the investment that families choose to dedicate to their children's education, and public policy that can reduce disparities between schools serving students from weaker and stronger socioeconomic backgrounds, in order to give students a real chance to attain higher education and rewarding jobs.





## *Executive Summary*

# **PISA Predictive Power of Future Educational Attainments: A Longitudinal Study**

Nachum Blass, David Maagan, Zemira R. Mevarech,  
and Joel Rapp

This Taub Center study shows that performance on international PISA exams is a strong predictor of later educational success. At the same time, many students who scored poorly on PISA nonetheless earned a Bagrut (matriculation) certificate, and some even pursued higher education and completed an academic degree. The research presents unique — and in some cases surprising — findings on the long-term outcomes of Israeli students over a period of 14 years.

### **PISA scores are strong predictors of future academic achievement, especially Bagrut and psychometric outcomes**

The study examined the link between the performance of students who took the 2009 PISA exam at age 15 and their later educational outcomes — in high school, on the psychometric exam, and in higher education up to age 29.

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\* Nachum Blass, Principal Researcher and Chair, Taub Center for Social Policy Studies in Israel Education Policy Program. Dr. David Maagan, Director, Higher Education and Teaching Staff Sector, Israel Central Bureau of Statistics. Prof. Zemira R. Mevarech, professor emerita, Faculty of Education, Bar-Ilan University, recipient of the Israel Prize in Education (2023). Dr. Joel Rapp, CEO, National Institute for Testing and Evaluation. This study was first published in November 2025 and is available on the Taub Center [website](#).

The findings indicate a strong connection between reading literacy levels on PISA and later academic achievements — for example, Bagrut scores and eligibility, the likelihood of taking the psychometric exam and the score obtained, and enrollment in higher education and completion of a first degree.

## **Even low-scoring PISA students succeeded in entering higher education**

The study also presents findings that challenge the assumption that PISA has unequivocal predictive power regarding future academic ability. For example, about half of the students in Reading Level 1 earned a Bagrut certificate, 25% began higher education studies, and 16% completed a first degree. Even at the lowest reading level (Level 0), 28% of students earned a Bagrut certificate, 10% began higher education studies, and 5% completed a first degree.

## **The strongest predictor of future outcomes: students' socioeconomic background**

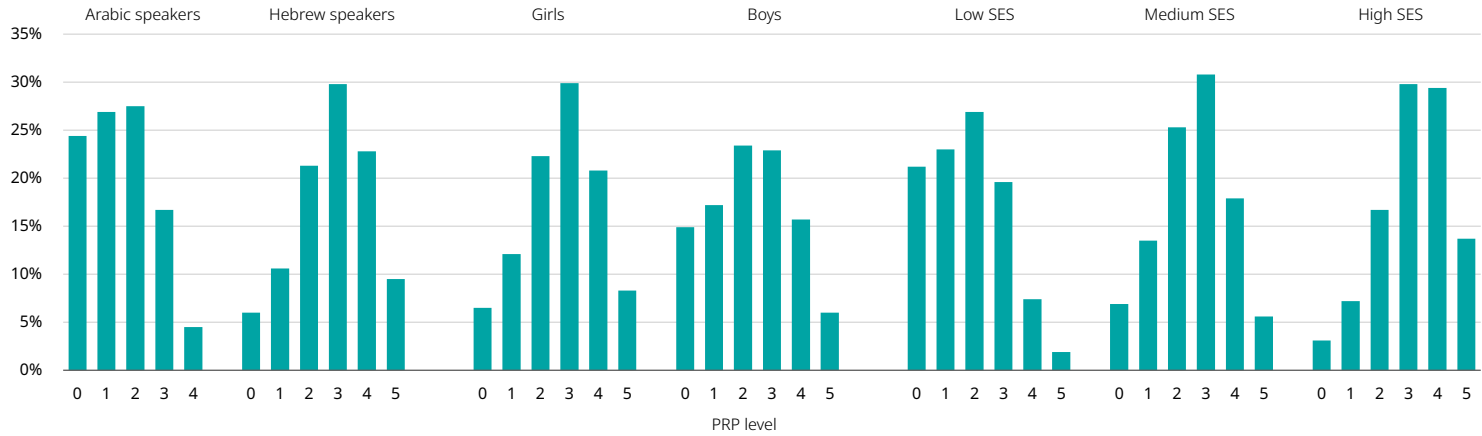
Students' socioeconomic background is the most influential factor in predicting future academic outcomes: at every reading level, students from higher socioeconomic backgrounds achieved better Bagrut results, were more likely to take the psychometric exam and received higher scores, and entered higher education at substantially higher rates. At the same time, the study shows that a considerable share of students from weaker socioeconomic backgrounds nonetheless earned a Bagrut certificate, pursued higher education, and even completed a degree.

Gender patterns also emerge: girls score higher in reading literacy and are more likely to take the psychometric exam, while boys receive higher psychometric scores and tend to choose fields of study associated with higher future earning potential.

## **Suggestions for further research**

The researchers suggest expanding the study to examine the extent to which reading skills — or skills in other subjects such as mathematics or science — predict future outcomes in other areas, such as employment and wages. It would also be possible to examine the impact of additional skills, such as problem solving and creative thinking, on future outcomes — both in education and in employment.

## Distribution of students according to PRP levels, by sector , gender, and SES group



Source: Blass, Maagan, Mevorach, and Rapp, Taub Center | Data: CBS





# WELFARE





# Welfare and the Shadow of Warfare

John Gal, Shavit Ben-Porat, and Yael Ovadia

## Introduction

The prolonged war in Gaza, which lasted more than two years, and the short war against Iran in June 2025 have largely shaped welfare policy over the past two years, pushing aside other policy initiatives in the welfare and social security spheres. The government was forced to contend with the consequences of the fighting and with a fragile economic environment. Coalition considerations affecting resource allocation, along with the government's avoidance of tax increases, further constrained the functioning of Israel's welfare state, whose resources have remained lower than those in most other welfare states. This reality was reflected in patterns of social expenditure and in the performance of the social security, health, education, and social services systems in 2024. For example, although social spending grew slightly, its share of total government expenditure declined, and this trend is expected to continue through 2025. Moreover, the data on government spending show an increase in social budgets and in new services dedicated to victims of hostilities and to the rehabilitation of communities affected by the war in Gaza. Even so, alongside the inevitable public attention to the ongoing war and its consequences, several significant welfare developments also unfolded during this period.

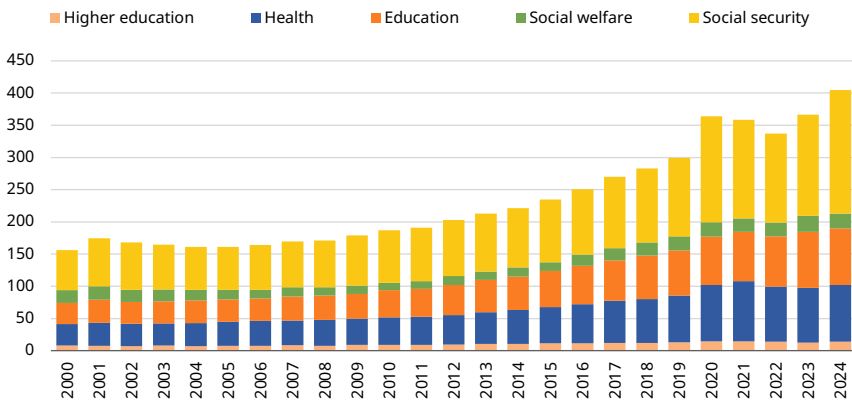
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\* Prof. John Gal, Principal Researcher and Chair, Taub Center Welfare Policy Program; Paul Baerwald School of Social Work and Social Welfare, The Hebrew University of Jerusalem. Shavit Ben-Porat, Researcher, Taub Center for Social Policy Studies in Israel. Yael Ovadia, Research Assistant, Taub Center.

## Social expenditure

In 2024, NIS 400 billion of government expenditure was allocated to social protection. As shown in Figure 1, public social expenditure grew in real terms by NIS 38 billion compared with 2023 (in 2024 prices). However, most of this increase was related to addressing the war's consequences for both civilians and soldiers. In fact, excluding the increase in spending directly related to the war, the rise in social expenditure amounted to only NIS 11 billion — below the average of the five years preceding the COVID-19 crisis, when it stood at roughly NIS 16 billion per year.

**Figure 1. Social expenditure, by category**  
NIS billion, 2024 prices

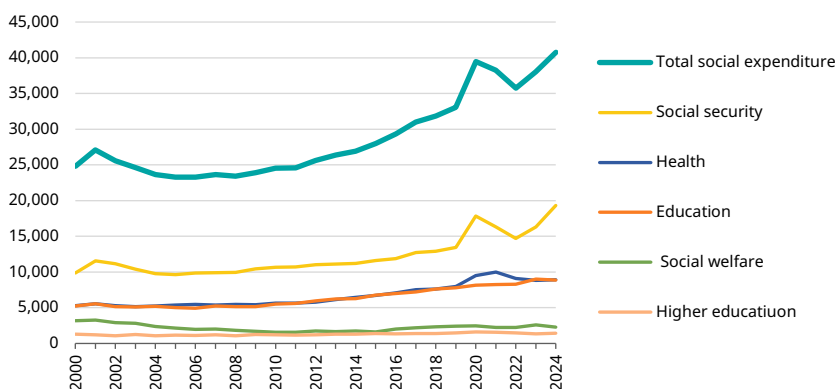


Notes: The social expenditure shown in the figure includes expenditures of the Ministry of Education and the Ministry of Health, as well as spending on higher education; social security expenditure, which includes National Insurance Institute expenditure on cash benefits (including reserve duty compensation), Ministry of Defense spending on the rehabilitation of families and disabled IDF veterans, Israel Tax Authority spending on the Earned Income Tax Credit, and the Holocaust Survivors' Rights Authority; social welfare expenditure, which includes the expenditures of the Ministry of Welfare and Social Affairs, the Ministry of Construction and Housing, the Ministry of Aliyah and Integration, the Ministry for Social Equality and the Advancement of the Status of Women, and the Ministry for the Negev, Galilee and National Resilience; and employment related expenditure by the Ministry of Economy.

Source: John Gal, Shavit Ben-Porat, and Yael Ovadia, Taub Center | Data: Ministry of Finance; NII

An examination of social expenditure per capita over time (Figure 2) shows that in 2024, spending increased by about 7%, reaching NIS 40,784 per person. However, once expenditures directly related to the war are excluded, it becomes clear that per capita spending did not increase and was identical to the level in the previous year.

**Figure 2. Per capita social expenditure**  
NIS

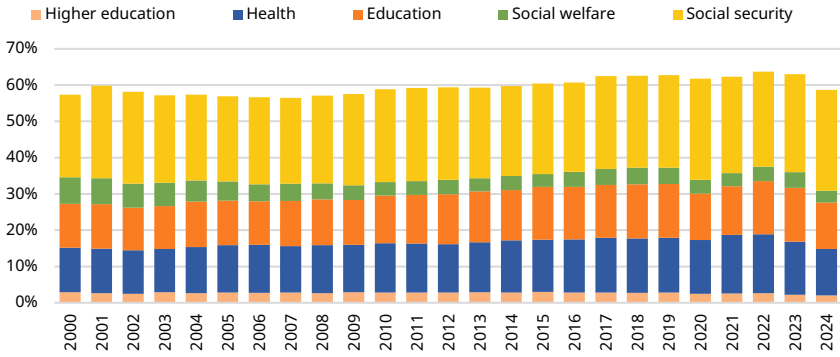


Note: The data in the figure relate to the population of Israel, including East Jerusalem.

Source: John Gal, Shavit Ben-Porat, and Yael Ovadia, Taub Center | Data: Ministry of Finance; NII

As shown in Figure 3, in 2024, social expenditure accounted for 59% of total government spending. This share — the lowest since 2013 — reflects both the increase in government spending on other fields, particularly war-related financing, and the reduction in spending on social areas not related to the war.

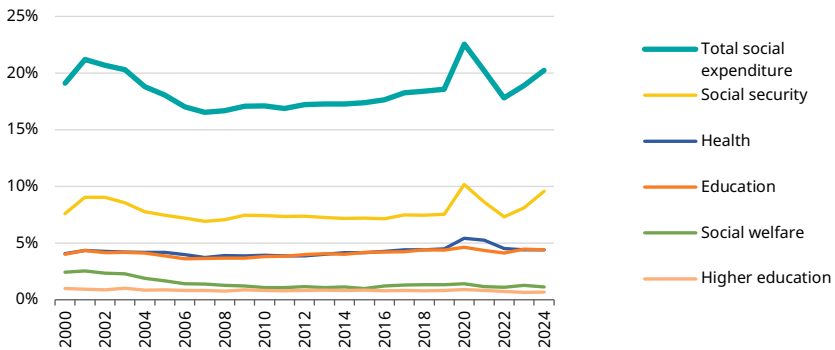
**Figure 3. Share of social expenditure out of total government expenditure, by category**



Source: John Gal, Shavit Ben-Porat, and Yael Ovadia, Taub Center | Data: Ministry of Finance; NII

In 2024, social expenditure amounted to 20% of GDP (Figure 4). Spending on social security stood at 10% of GDP, while spending on education and health was about 4.5%. It is worth noting that in 2024, GDP totaled roughly NIS 2 trillion — about 6.4% higher than in the previous year — compared with an increase of about 14% in social expenditure. This gap largely explains the rise in the share of social expenditure relative to GDP.

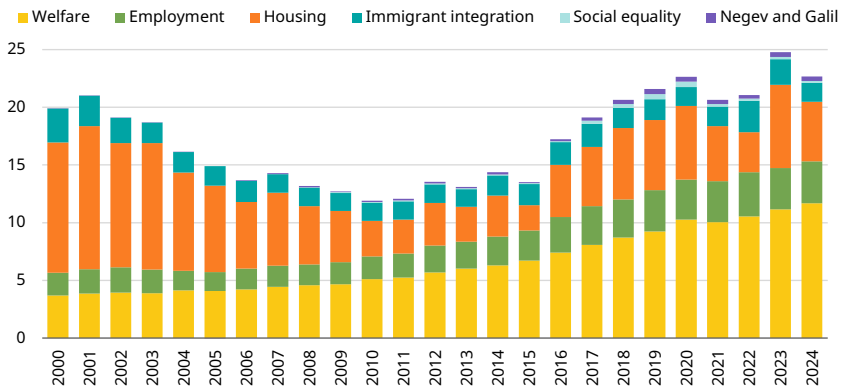
**Figure 4. Social expenditure as a percentage of GDP, by category**



Source: John Gal, Shavit Ben-Porat, and Yael Ovadia, Taub Center | Data: Ministry of Finance; NII

Examining the areas of social welfare — that is, the services provided by the government’s social ministries other than the Ministries of Education and Health — shows that in 2024, expenditure on these areas declined relative to 2023 (Figure 5). The main reason was a reduction of roughly 29% in spending on housing (for further discussion, see the final section of the chapter). In fact, among all social welfare areas, only spending on employment and on areas under the responsibility of the Ministry of Welfare and Social Affairs increased, and even there the growth was relatively modest.

**Figure 5. Expenditure by social welfare categories**  
NIS billion, 2024 prices



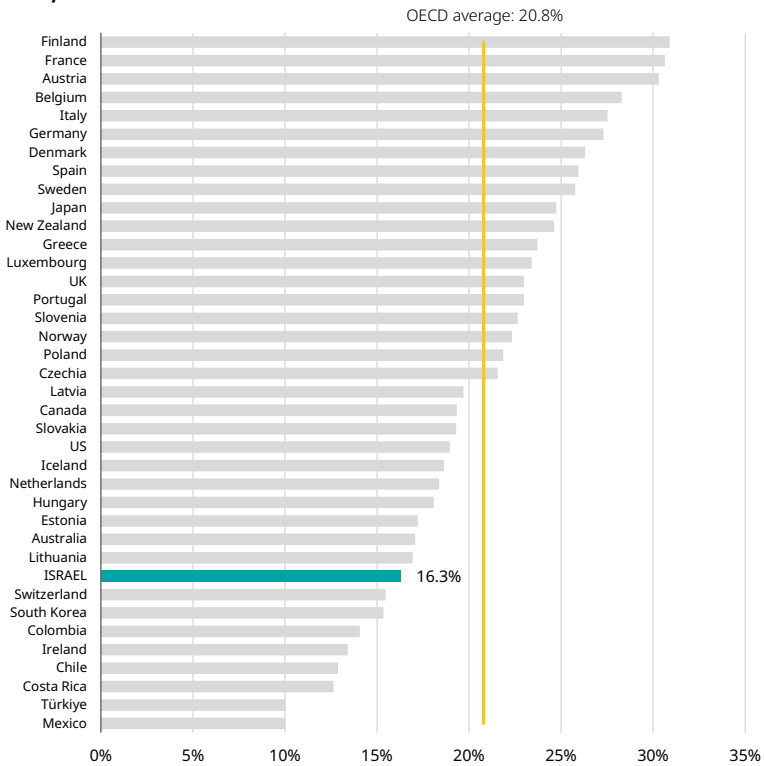
Source: John Gal, Shavit Ben-Porat, and Yael Ovadia, Taub Center | Data: Ministry of Finance

Compared with other welfare states, and even with countries not considered advanced welfare states, Israel's social expenditure remains low and falls short of meeting the population's needs.<sup>1</sup> The persistent difficulty in addressing poverty and inequality — whose levels in Israel are considerably higher than in most welfare states — is clear evidence of this (Kasir et al., 2024). As shown in Figure 6, the welfare states with the highest levels of social expenditure

1 The measurement of social expenditure used for the international comparison (Figure 6) differs from the comparison presented above (Figures 1–4) and was carried out under different definitions.

allocate 25%–30% of their GDP to social issues (excluding education), and the OECD average for public social expenditure stands at 20.8% of GDP. Only a small number of countries allocate a smaller share to social protection than Israel (16.3%). It is noteworthy that even countries not considered advanced welfare states — such as Slovenia, Poland, Czechia, Latvia, Slovakia, Hungary, and Estonia — devote a higher share of their GDP to social spending than Israel does.

**Figure 6. Public social expenditure as a percent of GDP in OECD countries, 2023**



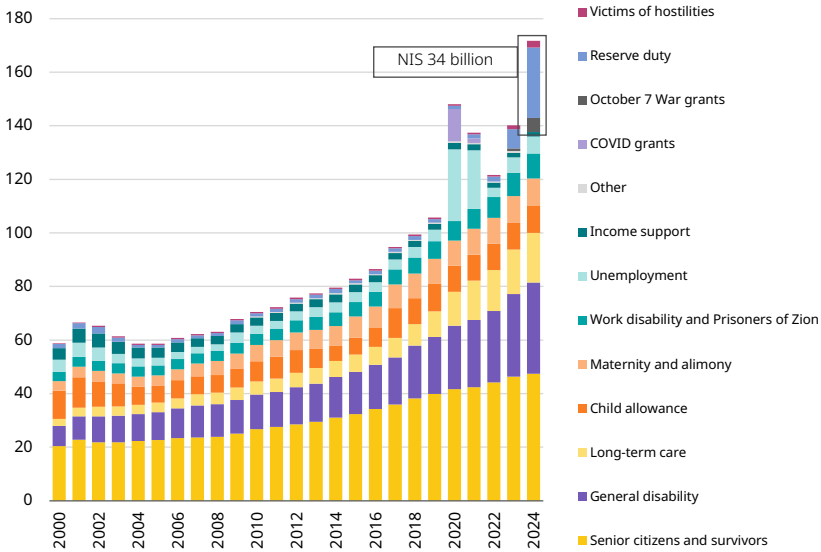
Note: Expenditure includes spending in social areas, among them health, and does not include expenditure on education, except for early childhood education. For countries where data were not available for 2023, 2022 data were used.

Source: John Gal, Shavit Ben-Porat, and Yael Ovadia, Taub Center | Data: OECD

## Social security

The social security system, which addresses social needs by providing benefits intended to increase the incomes of individuals and families, is the most significant component (in terms of spending) of Israel's welfare state. This system includes cash assistance to citizens through the National Insurance Institute; activities of the Ministry of Defense's Rehabilitation Department; and grants provided by the Ministry of Finance to certain population groups (such as the Earned Income Tax Credit, assistance for Holocaust survivors, and assistance for victims of the 2025 war with Iran). The largest component of social security expenditure is the benefits paid by the National Insurance Institute. In 2024, their cost totaled NIS 172 billion, compared with NIS 140 billion (in 2024 prices) in 2023 (Figure 7). The increase in National Insurance benefits in 2024 reflects several notable developments. In some cases, these are multi-year growth trends in spending on specific areas, driven by demographic processes (such as population growth or aging) and by policy changes. This is pertinent for disability and long-term care benefits: due to policy changes in these areas, recent years have seen increases both in the number of eligible recipients and in benefit levels. For example, between 2023 and 2024, spending on general disability benefits rose by more than NIS 3 billion, and spending on long-term care benefits increased by roughly NIS 2 billion. By contrast, unlike most National Insurance programs, spending on the income support benefit continued to decline in 2024, amounting to only NIS 1.64 billion (compared with NIS 1.7 billion in 2023). This figure reflects a decrease in the number of recipients of this benefit — which provides a last-resort safety net for those with no income or very low incomes — from 60,316 in 2023 to 57,093 in 2024. It is evident that this trend, which has characterized the benefit in recent years, continued into 2025 as well.

**Figure 7. National Insurance Institute benefits, by type**  
NIS billion, 2024 prices



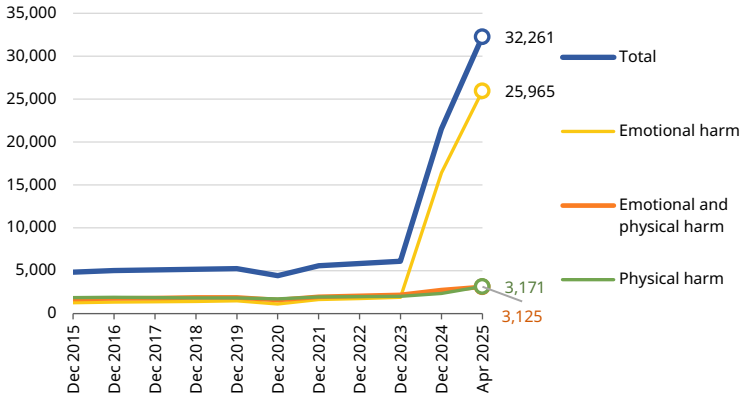
Source: John Gal, Shavit Ben-Porat, and Yael Ovadia, Taub Center | Data: NII

The impact of the war in 2024 and 2025 on the activities of the National Insurance Institute and on the Ministry of Defense’s Rehabilitation Department is particularly striking. In 2025, additional assistance was introduced for victims of the Iranian missile attacks. In 2024, National Insurance spending on victims of hostilities, reserve duty service, and the October 7 War grants totaled roughly NIS 34 billion. Most of the increase stemmed from the dramatic rise in spending on reserve duty service, which grew from just NIS 1.7 billion in 2022 to about NIS 26 billion in 2024. Spending on October 7 War grants that year amounted to NIS 5.3 billion. These expenditures, which are a direct result of the wartime situation, are financed entirely from the state budget; government ministries transfer the funds directly to the National Insurance Institute, without relying on National Insurance contributions from employees and employers. Moreover, eligibility for these benefits depends not on income but on meeting specific conditions.

Grants for evacuees and war victims, as well as reserve duty compensation, are limited to the duration of the war; other benefits — such as compensation for victims of hostilities with long-term disability, or benefits provided by the Ministry of Defense's Rehabilitation Department to IDF veterans with disabilities and to families of fallen soldiers — will remain part of the social security system for many years to come. Any changes to these programs resulting from the war are thus especially significant.

In the past, the program for victims of hostilities was small, as the number of eligible recipients was relatively low. The decision to make this program the primary framework for assisting civilians harmed in the October 7 massacre and in the subsequent months of war marked a major shift. Immediately after the massacre, the program issued a one-time payment to a broad population. It is now processing requests for disability recognition, determining disability ratings, and deciding on the long-term assistance required by victims. The scope and nature of the assistance provided to those recognized as victims of hostilities are intended to match those provided by the Ministry of Defense to IDF veterans with disabilities. As shown in Figure 8, the changes to this program are highly significant, both in terms of the number of eligible recipients and the characteristics of their injuries. In 2022, the number of victims of hostilities stood at 5,706, and by April of 2025, the numbers were 32,261. The distribution of newly recognized victims since October 7, 2023, indicates that the majority — 24,212 — suffer from psychological injury; 1,169 from physical injury; and another 1,048 from both psychological and physical injury. The National Insurance Institute has reported that its medical committees are reviewing an additional 45,000 requests for recognition of injury (published on the National Insurance Institute website, April 25, 2025). This implies a substantial increase in resources allocated to the program for victims of hostilities, both now and in the coming years. Spending on this program grew from NIS 613 million in 2022 to NIS 2.5 billion in 2024.

**Figure 8. Total number of victims of hostilities, by officially recognized disability type**



Source: John Gal, Shavit Ben-Porat, and Yael Ovadia, Taub Center | Data: NII

## Ministry of Defense Rehabilitation Department

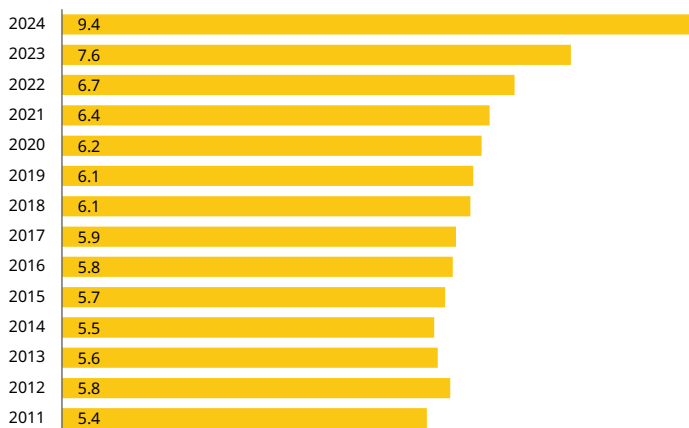
Another consequence of the prolonged war is the dramatic increase in the number of IDF service-related casualties. In addition to the soldiers who have been killed so far, there are also a large number of individuals classified as disabled IDF veterans. As shown in Figures 9 and 10, the number of disabled veterans served by the Ministry of Defense's Rehabilitation Department rose from 116,300 in 2022 to 132,172 in 2024. As a result, the budgets of both the Rehabilitation Department and the Department of Families, Commemoration, and Heritage increased sharply, from NIS 6.7 billion in 2022 to NIS 9.4 billion in 2024 (Figure 10). Against the backdrop of the substantial overall increase in the Ministry of Defense's budget due to the war, this component's share of the ministry's total budget decreased — from about 10% in the period before the war to roughly 6% during the war.

**Figure 9. Disabled IDF veterans entitled to care provided by the Ministry of Defense Rehabilitation Department**



**Figure 10. Annual expenditure by the Rehabilitation Department and the Department of Families, Commemoration and Heritage in the Ministry of Defense**

NIS billion



Source for both figures: John Gal, Shavit Ben-Porat, and Yael Ovadia, Taub Center | Data for both figures: Ministry of Defense, Freedom of Information Reports; Ministry of Finance

## SPOTLIGHT

# Care for Victims of Rocket Fire from Iran

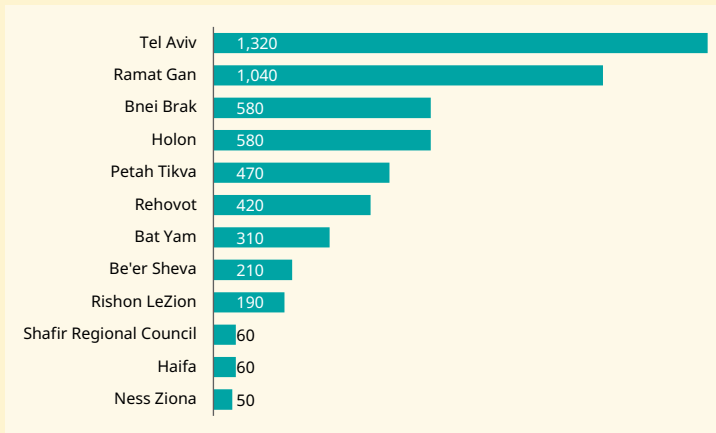
The war with Iran, which began when Israel struck Iran on June 13, 2025, lasted 12 days. During this period, there were more than 50 impact sites in Israel from missiles or missile fragments launched from Iran, 31 people were killed and 3,508 were injured. The missile strikes also caused extensive damage to residential buildings in 12 local authorities, and roughly 21,000 residents were forced to leave their homes due to varying levels of damage (Shachar & Lerer, 2025).

The Property Tax and Compensation Fund Law regulates compensation for those whose homes are damaged as a result of hostilities or war in Israel. Responsibility for evacuees rests with the Tax Authority's Compensation Fund and the local authorities in whose jurisdictions the damage occurred. The Tax Authority is primarily responsible for financing the damage repairs, but in practice its representatives also handle additional tasks, such as contacting affected residents immediately after an incident and providing information to the public. The local authorities are responsible for the actual evacuation and for providing all other welfare services to evacuees.

Initially, a short-term solution was offered to those affected by the strikes: anyone whose home was deemed uninhabitable was entitled to two weeks of alternative housing — either a hotel room funded by the Compensation Fund, or a NIS 4,000 grant for self-evacuation or staying with family members. By the end of

hostilities, the Hotel Association estimated that roughly 12,000 people had been evacuated to about 90 hotels and guesthouses across the country. A longer-term solution was then offered: those requiring extended stays in alternative housing could apply to the Compensation Fund for rental payments covering an apartment similar to the one damaged. An alternative long-term option was to continue self-evacuation and receive payments based on the household composition, according to criteria set by the Tax Authority. According to estimates, 5,380 households required long-term alternative housing. As shown in Figure 11, most of the damage occurred in Tel Aviv and Ramat Gan.

**Figure 11. Households requiring alternate housing solutions following rocket attacks from Iran, July 2025**



Note: Data are based on estimates rounded to tens and are accurate to July 29, 2025.

Source: John Gal, Shavit Ben-Porat, and Yael Ovadia, Taub Center | Data: Shachar & Lerer, 2025

In June, following a government decision, the emergency procedure was updated and hotel stays were extended from two weeks to 30 days (until August 1, 2025). Those who wished to remain in hotels beyond that date were required to apply to a committee of the Compensation Fund. By early September, 692 people from Tel Aviv, Ramat Gan, and Petah Tikva who were still staying in hotels had submitted applications — most of them older adults, people with disabilities, and individuals known to the welfare authorities (Shachar & Lerer, 2025).

Following the missile strikes, the Tel Aviv local authority developed an online platform for locating apartments and it offered discounts on municipal parking and summer camp registration fees. The Ramat Gan local authority provided grants to their employees who had been evacuated from their homes, as well as to bereaved parents and widows who were evacuated. Additional official entities offered benefits and discounts to evacuees, such as reduced fares on public transportation, deferred mortgage and loan payments, and relief measures for individuals with debts in enforcement proceedings. Organizations such as the Jewish Agency and the International Fellowship of Christians and Jews distributed grants to evacuated families through local authorities.

A State Comptroller's report included criticism of the handling of the evacuees, particularly the absence of a government body responsible for coordinating hotel evacuations (State Comptroller, 2025). Municipal leaders told Ombudsman representatives that the National Emergency Authority instructed them to contact hotels directly but did not establish guiding criteria, which led local authorities to compete with one another for certain hotels and resulted in large disparities between them in hotel characteristics. Criticism of the hotel evacuation process also appeared in a report by the Knesset Research and Information Center (Shachar & Lerer, 2025). The lack of a coordinating body

for hotel evacuations was also evident during the Gaza war (Gal et al., 2024), although that conflict involved the evacuation of tens of thousands of people and much longer hotel stays.

The September 2025 report of the Knesset Research and Information Center addressed the shortage of personnel in the welfare services of the Bat Yam municipality — a shortage that exists even in routine times but was especially pronounced during the war. The report noted that although the Ministry of Welfare and Social Affairs transferred a flexible-use budget to the municipality at the start of the war, it did not help recruit new staff or ease the burden on existing workers. Shortly after the war ended, residents of the Haredi city of Bnei Brak whose homes had been damaged claimed that the municipality was discriminating against them and denying them their entitlements, in part because the residents were secular. Additional allegations reported in the media, though not mentioned in official state reports, describe unjustified evacuations of residents and the prolonged, unnecessary hotel stays of hundreds of city residents.

## **The social security system: Between universality and selectivity**

A common claim about Israel's social security system is that in recent decades it has undergone a substantial shift in its characteristics that is influenced by neo-liberal ideas. In particular, it is argued that the system's universal features have eroded and been replaced by more selective approaches. In other words, access to benefits depends today more than in the past on meeting an income test that conditions eligibility on demonstrating very low income — unlike the universal approach, which conditions eligibility for benefits on a range of criteria (such as a qualifying period for maternity benefits, a minimum age for the old-age pension, or involuntary job loss for unemployment benefits) but

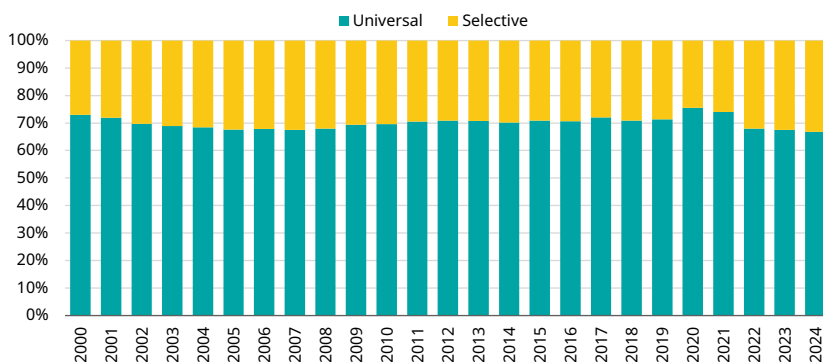
does not condition eligibility on the income level of the individual or household. The universal approach reflects an effort to make the social security system accessible to the entire population in cases of income loss or clear household need, whereas the selective approach targets social security programs toward the population living in poverty, whose economic need is clear and demonstrable.

In the past, Israel's social security system was characterized by a universal approach, alongside several selective programs intended to provide a social safety net for specific population groups. This structure was designed to offer a last-resort safety net for those in greatest need, while also ensuring that the general population felt that anyone experiencing income loss would receive social protection. Nevertheless, many of the programs were not generous enough, and the eligibility conditions set for them were complex. The universal features of the system made it possible to avoid stigmatizing recipients, to streamline lengthy bureaucratic procedures for determining need, and to reduce non-take-up — phenomena that tend to characterize selective programs requiring income tests.

We sought to examine whether, over the past two decades, a meaningful change has in fact occurred in the structure of the social security system — whether it now leans more toward selectivity than universality. Figure 12 presents the findings and tracks long-term changes in the two types of National Insurance Institute benefits. Universal benefits, for which income level is not a condition for eligibility, include the old-age pension, survivors' benefits, child allowance, maternity benefits and birth grant, unemployment benefits, work-injury insurance, and benefits for victims of hostilities. Selective benefits, for which only individuals below a certain income threshold qualify, include the general disability benefit, the income supplement for older adults, the income support benefit, and alimony allowances. The Long-Term Care Law also includes a substantial selective component aimed at preventing benefit eligibility for older adults with high incomes. According to estimates, 38% of older-adult households have income above the maximum threshold defined by the law's income test (Schnoor et al., 2021). While the universal grants adopted during the COVID-19 period and the war, as well as reserve duty compensation, are universal in nature, they were excluded from the analysis due to their exceptional and temporary character.

The results indicate that throughout the entire period examined, spending on universal benefits has remained the dominant component of National Insurance Institute benefit expenditure — about 70% of total spending. At the beginning of the 2000s, a moderate shift in the expenditure structure was evident, in favor of selective benefits. This trend has continued in recent years, driven by increases in disability and long-term care benefits. The share of expenditure on selective benefits rose from 29% before the COVID-19 pandemic to 33% in 2024.

**Figure 12. Change in the structure of NII allowances: Universal versus selective allowances**



Source: John Gal, Shavit Ben-Porat, and Yael Ovadia, Taub Center | Data: Shachar and Lerer, 2025

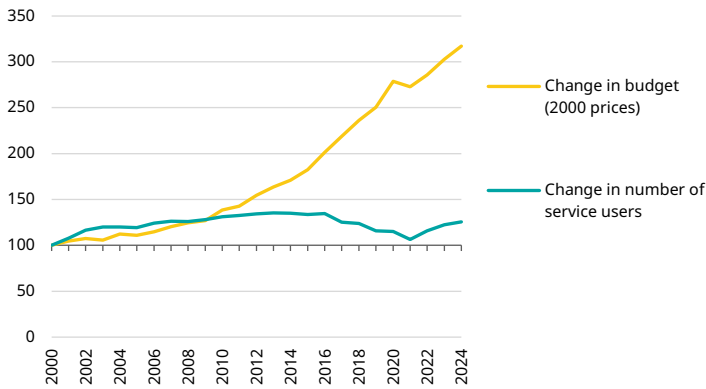
## The Ministry of Welfare and Social Affairs

The Ministry of Welfare and Social Affairs is the largest social ministry after the Ministry of Education and the Ministry of Health, and it receives half of all social welfare spending. Most of its budget is directed toward welfare services provided through the social service departments in every local authority in Israel and through various welfare institutions across the country. More than 80% of the budget funds outsourced services, and the ministry functions primarily as a funder and regulator (Gal, 2025).

An examination of changes in the Ministry of Welfare and Social Affairs' budget over time (Figure 13) shows that after a decade of moderate growth, accelerated expansion began in 2010. The ministry's budget increased from about NIS 5.1 billion in 2010 to about NIS 11.7 billion in 2024 — an increase of 2.3 times in real terms. This trend differs from the pattern observed in the number of service users, which remained fairly stable over the period examined and even declined slightly in some years.

**Figure 13. Changes in the budget of the Ministry of Welfare and Social Affairs and in the number of service users**

Base year: 2000

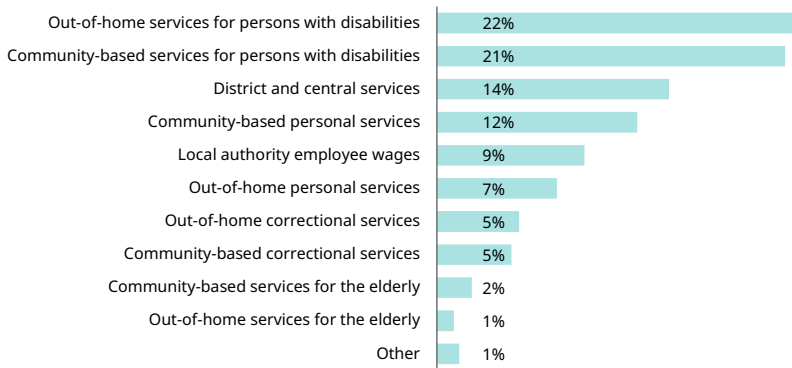


Source: John Gal, Shavit Ben-Porat, and Yael Ovadia, Taub Center | Data: Ministry of Finance; Ministry of Welfare and Social Affairs

An analysis of the Ministry of Welfare and Social Affairs' budget between 2010 and 2024 shows that most of its growth stemmed from increased spending on services for people with disabilities. Although out-of-home services for people with disabilities — that is, placement of individuals with disabilities in residential institutions — were already a major budget component at the start of the period, spending on these services more than doubled over time (see Appendix Figure 1). A look at the sources of this growth (Figure 14) shows that about 22% of the total increase in the ministry's budget resulted from growth in this area; an additional 21% came from increased spending on community-

based services for people with disabilities. These were followed by notable increases in spending on district and central services (14%) and on personal community services (12%). Finally, there were also increases in spending on salaries for local authority welfare workers (9%) and on out-of-home personal services (7%). Growth in other areas — such as out-of-home correctional services and community correctional services — was even more limited, and the smallest increase of all was in spending on services for older adults (3% for out-of-home and community services combined).

**Figure 14. Growth in expenditure on central components of the Ministry of Welfare and Social Affairs' budget, 2010–2024**



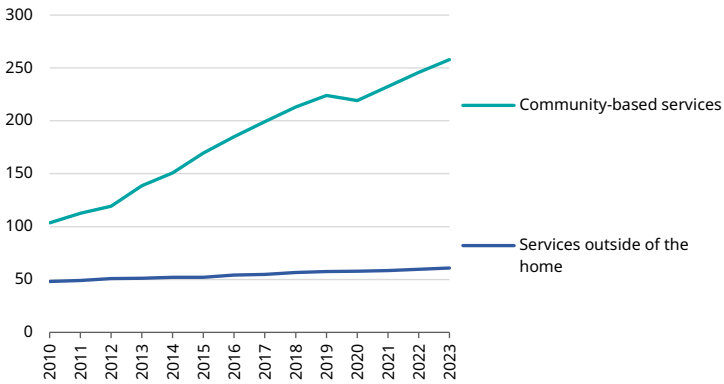
Note: Correctional services refers to services provided to youth and adults at risk, offenders, and victims of crime.

Source: John Gal, Shavit Ben-Porat, and Yael Ovadia, Taub Center | Data: Ministry of Finance

When examining total expenditures on out-of-home services across the various areas (that is, all services provided to individuals living outside their homes, such as residential institutions) and total expenditures on the various components of community-based services (provided to individuals living in their own homes), it becomes clear that about 35% of the overall increase resulted from growth in spending on out-of-home services, and about 40% from growth in spending on community-based services.

At the same time, an examination of the number of individuals enrolled in out-of-home frameworks (Figure 15) shows that from 2010 to 2022 their number increased moderately — especially compared with the number enrolled in community-based frameworks, which grew 2.5-fold over the same period. It appears that the growth in the ministry’s budget reflects both rising costs of the services themselves, at least for out-of-home services, and changes in policy.

**Figure 15. Registered service users by service framework**  
Thousands



Source: John Gal, Shavit Ben-Porat, and Yael Ovadia, Taub Center | Data: Ministry of Welfare and Social Affairs

## SPOTLIGHT

## Legal Representation in the Treatment Planning and Assessment Committee

Significant decisions regarding how to address the needs of children at risk are made in Treatment Planning and Assessment committees (*decision committees*), which operate within the social services departments of local authorities. These committees are a central mechanism for determining the appropriate course of action for children at risk. For example, in 2022, 17,695 such committees convened and discussed treatment plans for 28,236 children (Ministry of Welfare and Social Affairs, 2024a). In September 2025, a Supreme Court ruling addressed the conduct of these committees and instituted a far-reaching change.

Treatment planning and assessment committees consist of multidisciplinary teams whose task is to formulate a detailed treatment plan for the child at risk and for their family, including defining treatment goals and outlining the process of implementation. In the first two decades of the 2000s, policy reforms were introduced to improve the functioning of these committees — among them measures to ensure the participation of family members in committee discussions, and even of the child (if aged 12 or older), based on the understanding that their views should be considered when recommendations are formulated. In recent years, additional clear procedures have been developed for how these committees should conduct their deliberations, along with tools designed to ensure proper implementation.

Nonetheless, research shows that the use of these tools is limited, and the full participation of parents in the committees and in shaping their recommendations remains complex and is often not adequately realized (Alfandari, 2017; Ben-Gal, 2022).

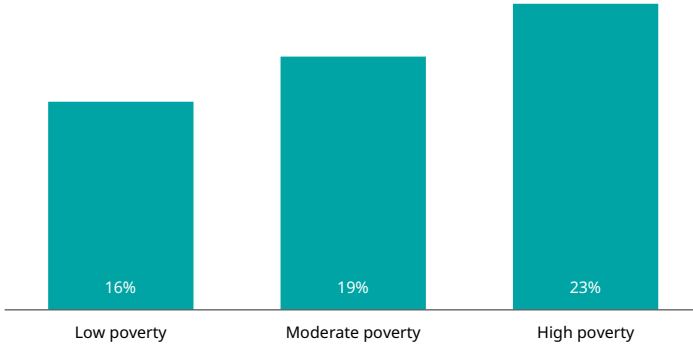
Professionals at the Ministry of Welfare and Social Affairs do not view the deliberations of these committees as legal proceedings, but rather as therapeutic processes. Consequently, committee members are treatment professionals, and the emphasis in the discussions is on therapeutic dialogue. Until recently, even when a family was represented by an attorney, the attorney did not participate in the committee discussion and was present only in pre-discussion meetings. In December 2023, the Association for Civil Rights in Israel (ACRI) petitioned the Supreme Court on this matter. The Ministry of Welfare and Social Affairs agreed to allow attorneys to attend committee hearings, but only as observers. ACRI insisted on active legal representation, arguing that this would help parents express their positions. Representatives of ACRI argued that the right to representation is a fundamental right, anchored in the Bar Association Law, and that restricting it requires explicit statutory authorization — which does not exist. A Supreme Court panel of three justices, headed by Justice Yosef Elron, accepted the ACRI's position and ruled that legal representation must be permitted in the committees' deliberations. The ruling stated: "Legal representation is of immense importance for parents whose children's cases are being considered by the committees — parents who often belong to the most vulnerable groups in society." Justice Elron noted that the Ministry's decision to bar legal representation in these hearings was taken without legal authority (Davar, 2025). There is no doubt that this ruling will significantly alter the nature of deliberations in Treatment Planning and Assessment Committees.

## The shortage of social workers in social welfare departments

Social workers are the primary professionals in social services departments. These departments provide welfare services and respond to the personal and social needs of hundreds of thousands of residents in Israel. One of the key challenges facing the welfare system in recent years is the severe difficulty in staffing positions in these departments. Although the labor market includes a large supply of qualified social work graduates, the Ministry of Welfare and Social Affairs — the main funder of these professionals — struggles to recruit social workers to the social service departments and to retain those already employed. Today, 18% of positions in social services departments nationwide are unfilled. This means that the system is short 1,333 social workers. Findings from a recent study published by the Ministry of Welfare and Social Affairs show that about 40% of social workers who begin working in social service departments leave within a few years. Of those who leave, 55% leave in their first year and another 15% in their second year (Ministry of Welfare and Social Affairs, 2024b).

Our analysis indicates that the difficulty in staffing positions in social services departments is more severe in localities with the highest levels of social distress, where the need for social workers is greatest. Figure 16 presents the share of unfilled positions by poverty level of the locality. The figure shows that the share of vacant positions in localities with high poverty rates (more than 25% of families in the locality living in poverty) is considerably higher than in localities with low poverty rates (up to 15% of families). In high-poverty localities, 23% of positions are unfilled, compared with 16% in low-poverty localities.

**Figure 16. Share of unfilled positions, by locality poverty level**

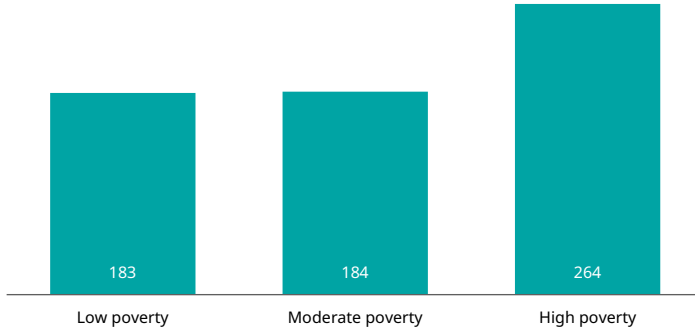


Notes: A social work position is defined as a position funded by the ministry. The sample includes 173 local authorities. Localities with fewer than 5,000 residents, regional councils for which poverty data are not available, and Jerusalem were excluded. Jerusalem was omitted because its unique characteristics substantially skewed the results for the high-poverty group (if Jerusalem is included, the share of vacant positions in high-poverty localities is 19%). Localities were classified into three poverty categories based on their distribution (bottom, middle, and top third): “Low poverty” — up to 15% of families in the locality living in poverty; “Moderate poverty” — 15%–25%; “High poverty” — more than 25%.

Source: John Gal, Shavit Ben-Porat, and Yael Ovadia, Taub Center | Data: Job position data (accurate to August 2025) are from the Ministry of Welfare and Social Affairs; poverty data are taken from Kasir et al., 2023 (data for 2022)

Another aspect examined is the workload placed on social workers in the social services departments. This factor has a decisive impact both on the quality of care provided to service recipients and on burnout experienced by professionals. Workload has been identified as the primary source of dissatisfaction among social workers and the main reason why half of them choose to leave their positions in the social services departments (Ministry of Welfare and Social Affairs, 2025). In this study, workload was measured as the number of service users in a locality per funded, staffed social work position under the Ministry of Welfare and Social Affairs (there are also positions funded solely by local authorities, but full data on them are not available). The findings show that in the poorest localities, the number of service users per social worker is higher (an average of 264) than in localities with moderate or low poverty rates (184 and 183, respectively) (Figure 17).

**Figure 17. Number of service users per filled social work positions, by locality poverty level**

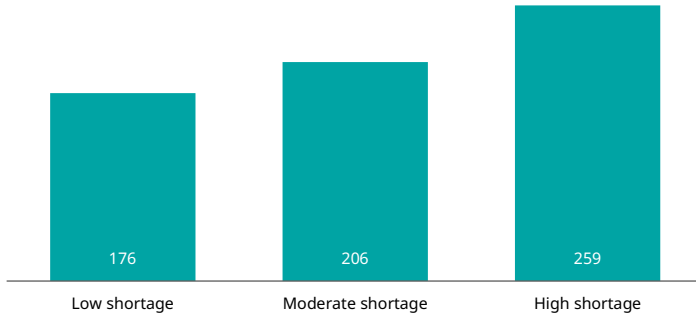


Notes: A social work position is defined as a position funded by the ministry. The sample includes 173 local authorities. Localities with fewer than 5,000 residents, regional councils for which poverty data are not available, and Jerusalem were excluded. Jerusalem was omitted because its unique characteristics substantially skewed the results for the high-poverty group (if Jerusalem is included, the number of service recipients per social work position in high-poverty localities is 243). Localities were classified into three poverty categories based on their distribution (bottom, middle, and top third): “Low poverty” — up to 15% of families in the locality living in poverty; “Moderate poverty” — 15%–25%; “High poverty” — more than 25%.

Source: John Gal, Shavit Ben-Porat, and Yael Ovdia, Taub Center | Data: Job position data (accurate to August 2025) and data regarding the number of service users (accurate to the end of 2024) are from the Ministry of Welfare and Social Affairs; poverty data are taken from Kasir et al., 2023 (data for 2022)

When examining the shortage of social workers together with the workload, the disparities between local authorities become clear (Figure 18). In authorities with a high shortage of professional staff (more than 24% of social work positions vacant), the average number of service users per social worker is higher (259) than in authorities where the shortage is smaller (176). This finding highlights the problematic cycle: understaffing creates heavier workloads, and heavy workloads make it even more difficult to attract additional social workers to fill the vacant positions.

**Figure 18. Number of service users per filled social work positions, by social worker shortage levels**

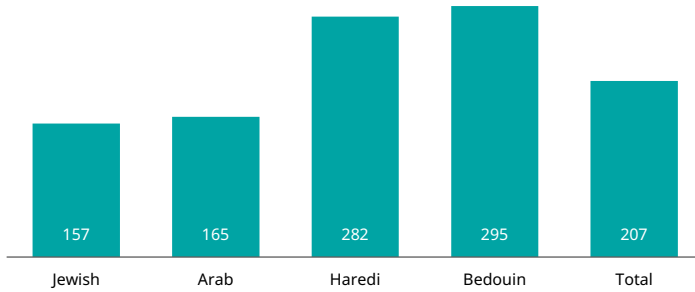


Notes: A social work position is defined as a position funded by the ministry. Localities were classified into three shortage categories based on their distribution (bottom, middle, and top third): “Low shortage” — up to 14% of social work positions vacant; “Moderate shortage” — 14%–24%; “High shortage” — more than 24%.

Source: John Gal, Shavit Ben-Porat, and Yael Ovdia, Taub Center | Data: Job position data (accurate to August 2025) and data regarding the number of service users (accurate to the end of 2024) are from the Ministry of Welfare and Social Affairs

An examination of the data by locality characteristics and population groups shows clear differences in the workload placed on social workers; in Haredi and Bedouin localities, the number of service users per staffed social work position is higher (Figure 19).

**Figure 19. Number of service users per filled social work positions, by locality characteristics**

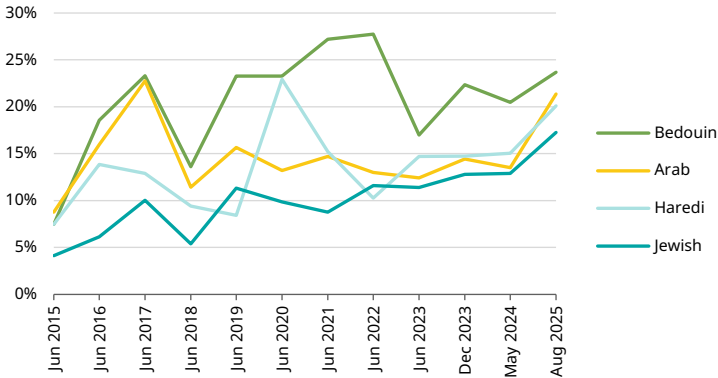


Note: A social work position is defined as a position funded by the ministry.

Source: John Gal, Shavit Ben-Porat, and Yael Ovdia, Taub Center | Data: Job position data (accurate to August 2025) and data regarding the number of service users (accurate to the end of 2024) are from the Ministry of Welfare and Social Affairs

The groups also differ in the share of unfilled positions (Figure 20). In Jewish localities (excluding Haredi ones), the average share of vacant positions is relatively low — about 17% — whereas in Arab localities, and especially in Bedouin localities, it is substantially higher, reaching about 24%. As shown in Figure 20, although the share of vacant positions fluctuates considerably over time, the trends are clear: a severe shortage in Bedouin and Arab localities compared with Jewish localities, alongside an overall upward trend in the share of unfilled positions.

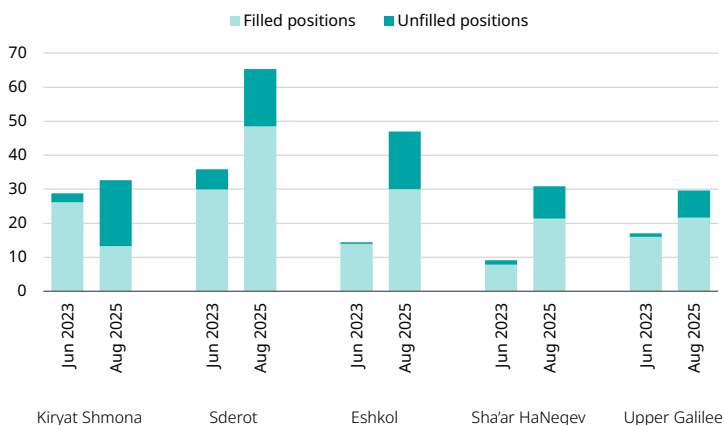
**Figure 20. Trends in the share of unfilled social work position, by locality characteristics**



Note: A social work position is defined as a position funded by the ministry.

Source: John Gal, Shavit Ben-Porat, and Yael Ovadia, Taub Center | Data: Ministry of Welfare and Social Affairs

The Ministry of Welfare and Social Affairs increased the number of social worker job positions to address the needs that emerged during the war in Gaza, particularly in the most heavily affected localities. The rise in vacancy rates since June 2023 stems from a substantial addition of positions in response to these needs (1,018 new positions). In addition, a series of measures were implemented to address the shortage of social workers in the social service departments, including raising salaries for social workers in these departments. However, these measures have not yet yielded results and have not led to a meaningful improvement in vacancy levels. This is especially evident in the localities evacuated following the events of October 7. In the authorities defined as evacuated, the staffing situation changed dramatically: the number of vacant positions across these authorities increased from 15 to 99, and the staffing rate fell from about 92% to 71%. Figure 21 presents staffing levels before October 2023 and in August 2025 in selected evacuated authorities. The figure shows that, although many new positions were added due to increased needs, only some were filled, and a large number remain vacant. Kiryat Shmona stands out in particular, with a relatively small increase in positions and a substantial decline in the staffing of existing positions.

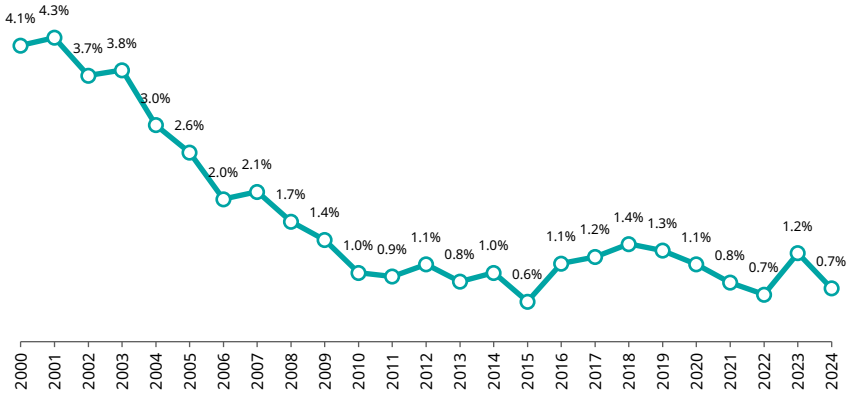
**Figure 21. Filling social work positions in selected evacuated localities**

Source: Kaidar, Gal, Ben-Porat, and Ovdia, Taub Center | Data: Ministry of Welfare and Social Affairs

## Ministry of Construction and Housing

The Ministry of Construction and Housing is the central government body responsible for implementing public housing policy and housing assistance, including managing the public housing stock and providing rent subsidies. Public investment in housing in recent decades — reflected in the ministry's share of total government expenditure — is shown in Figure 22. At the beginning of the 2000s, housing expenditure accounted for more than 4% of total government spending, but over that decade it declined sharply to about 1% in 2010. Since then, the share has fluctuated around this level, reaching only about 0.7% in 2024.

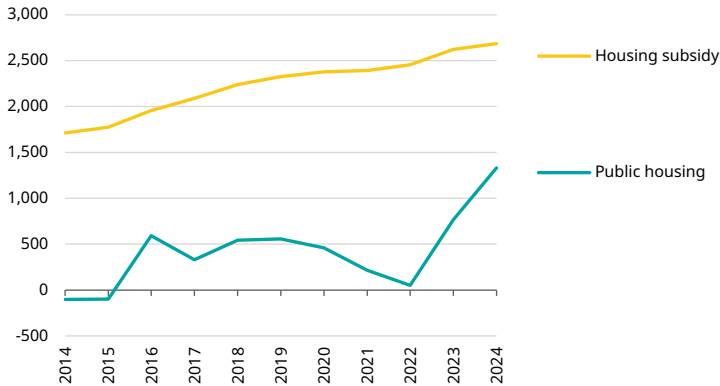
**Figure 22. Expenditure on housing out of total government expenditure**



Source: John Gal, Shavit Ben-Porat, and Yael Ovadia, Taub Center | Data: Ministry of Finance

Among the Ministry of Construction and Housing’s core responsibilities are two main assistance mechanisms: rent subsidies, provided through monthly contributions toward rent for eligible households living in private market housing; and public housing, provided through the placement of eligible households in state-owned apartments. Trends in expenditure on these two components over the past decade are shown in Figure 23. Spending on rent subsidies rose steadily from about NIS 1.7 billion in 2014 to about NIS 2.7 billion in 2024, while spending on public housing remained low and volatile. Public housing expenditure includes a range of components, such as budgets for purchasing new units for the stock, renovation and maintenance of existing units, and offsetting revenues from the sale of units. Because of this offset mechanism, in years when revenues from sales exceeded other expenditures, this budget item even recorded negative expenditure (i.e., net revenue). In recent years (2023–2024), following dedicated allocations for purchasing new units, a renewed increase in spending in this area is evident.

**Figure 23. Expenditure on public housing and rent subsidies**  
NIS million, 2024 prices

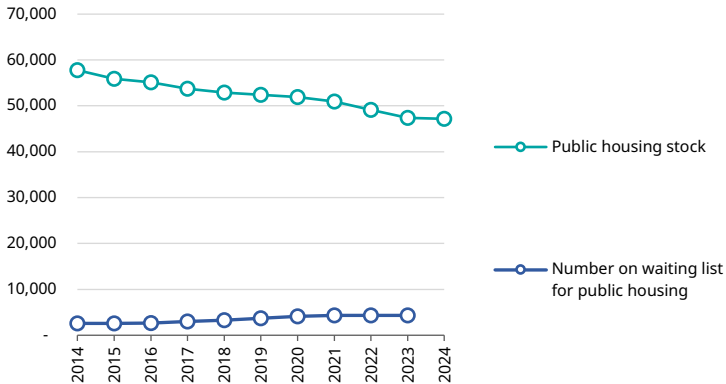


Source: John Gal, Shavit Ben-Porat, and Yael Ovadia, Taub Center | Data: Ministry of Finance

The low level of expenditure on public housing corresponds to the steady decline in public housing stock (Figure 24). Between 2014 and 2024, the stock fell from about 57,800 units to about 47,100 units — a decrease of roughly 18% over the decade. At the same time, the number of eligible households waiting for public housing has risen continuously, from about 2,600 in 2014 to about 4,300 in 2023 (excluding applicants handled by the Ministry of Aliyah and Integration) — an increase of about 67%. The decline in the housing stock and the rise in the number of eligible applicants are also reflected in the budgetary shift in housing assistance policy from assistance with housing toward rent subsidies, shown in Figure 23.

These trends, which reflect the widening gap between demand for public housing and the available supply, are also evident in the substantial increase in waiting times for an apartment — from two years and one month in 2016 to roughly two years and eleven months in 2023 — meaning that during this period the waiting time lengthened by nearly a year (State Comptroller, 2024).

**Figure 24. Public housing stock and the number of eligible applicants on the waiting list**

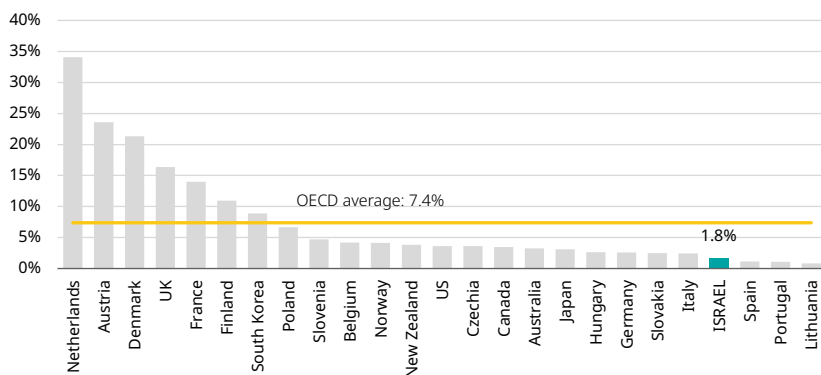


Notes: The number of eligible applicants on the waiting list is based solely on the eligibility criteria of the Ministry of Construction and Housing. It does not include the waiting list of the Ministry of Aliyah and Integration. The figure for 2015 is based on an estimate. The most recent data for those waiting for public housing are from 2023.

Source: John Gal, Shavit Ben-Porat, and Yael Ovadia, Taub Center | Data: Ministry of Construction and Housing; State Comptroller, 2020, 2024

In international comparison, the scale of social housing in Israel is particularly small (Figure 25). The share of rental units provided through social housing out of all housing units in the country stands at only about 1.8%, compared with an average of about 7.4% in the OECD countries examined. According to data from the Ministry of Construction and Housing (2018), this share stood at 23% in Israel in the 1970s — a figure that underscores the ongoing erosion of the country’s public housing system.

**Figure 25. Share of social rental housing stock out of all housing units, 2022 or the nearest available year**



Notes: The average refers to countries for which data were available from 2018 onward. Social housing in Israel includes public housing units, housing units in senior housing facilities operated by the Ministry of Construction and Housing, and units managed by the Ministry of Aliyah and Integration. In other countries, it includes rental units provided through various models in which rents are regulated and set below market rates.

Source: John Gal, Shavit Ben-Porat, and Yael Ovdia, Taub Center | Data: OECD Affordable Housing Database

## Summary

The prolonged war in Gaza has had far-reaching consequences for the welfare and social security systems in Israel over the past two years. To address the needs of those affected, spending increased substantially. At the same time, growth in other welfare and social security expenditures was halted. For many years, Israel has struggled to contend with a wide range of social hardships that undermine residents' quality of life and contribute to poverty and inequality, and now it must address the consequences of the war as well. Alongside a discussion of these broader trends that characterized the welfare state in 2024 and 2025, in this chapter we also focused on systems and populations that typically receive little attention in public debate: children at risk and the anticipated changes to the treatment planning and assessment committees, as well as the substantial long-term decline in public housing expenditure. In the coming years, the welfare system will need to confront new challenges created by the war, including the mental health needs of individuals and families and the rehabilitation of affected communities. At the same time, it will need to grapple with all those social problems whose visibility in the public arena diminished when attention shifted to the war, but which remain as acute as they were before October 7, 2023 — and perhaps even more so. Given all this, and in view of the risk that cuts to civilian public expenditure will continue while resources are directed toward fulfilling coalition agreements, it is clear that the welfare system will face increasingly complex challenges in the years ahead.

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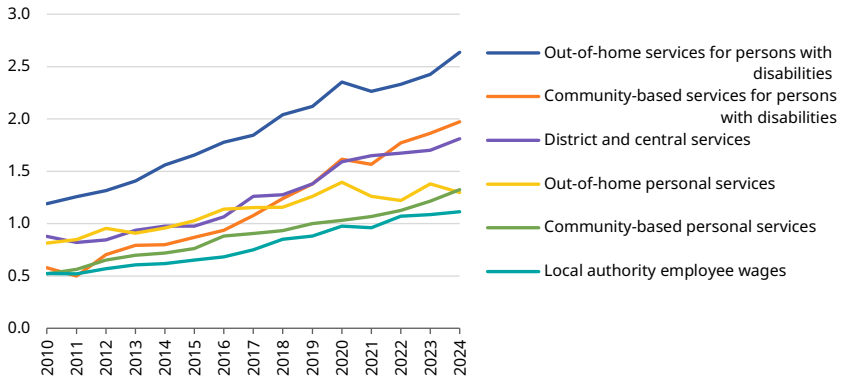
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## Appendix

**Appendix Figure 1. Growth in expenditure on central components of the Ministry of Welfare and Social Affairs' budget over time**  
NIS billion, 2024 prices



Source: John Gal, Shavit Ben-Porat, and Yael Ovadia, Taub Center | Data: Ministry of Finance





## *Executive Summary*

# **Mid-life and Alone — Single-Person Households: Characteristics, Challenges, and Policy Directions**

Shavit Ben-Porat and John Gal

A first-of-its-kind study in Israel reveals that there are currently about 144,000 men and women aged 50–64 living in single-person households, many of whom lack the resources, family, or institutional support needed to cope with the material, physical, and emotional hardships that undermine their quality of life.

The study's authors, Shavit Ben-Porat and Prof. John Gal, note that this population is expected to grow significantly over the next two decades. They call on the welfare system to recognize it as a distinct group requiring targeted interventions and specific welfare programs — just as young people, families with children, and older adults receive.

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\* Shavit Ben-Porat, Researcher, Taub Center for Social Policy Studies in Israel. Prof. John Gal, Principal Researcher and Chair, Taub Center Welfare Policy Program; Paul Baerwald School of Social Work and Social Welfare, The Hebrew University of Jerusalem. This study was first published in September 2025 and is available on the Taub Center website.

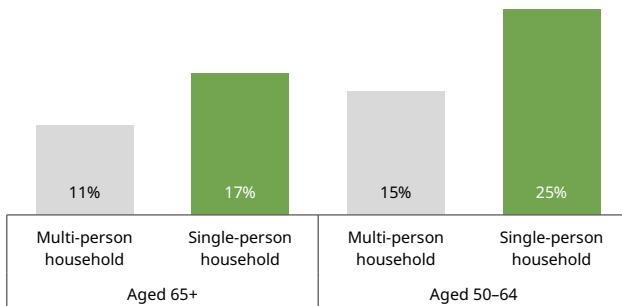
## The phenomenon of single-person households in Israel is expanding, especially among Jewish men

The findings show that by 2040, the total number of individuals aged 50–64 living in single-person households is expected to grow to about 199,000–207,000. The number of Jewish men — the largest group within this population — is expected to increase from about 69,200 today to 113,500–129,700. In Arab society, the share of those living alone is very low: about 2% of men and 5% of women, most of whom live alone following divorce or the death of a spouse.

## Middle-aged single-person households are poorer than non-single-person households

The study shows that about 17% of single-person households live below the poverty line, compared with only about 11% of non-single-person households. In terms of employment and economics, people living in single-person households are less likely to be employed and more reliant on allowances for their livelihood. Their difficulties are also noted in housing and health: a lower share live in homes they own, and among renters, more live in public housing. What is more, many forgo medical treatments and medications due to financial difficulties.

### Share of households below the poverty line, 2022

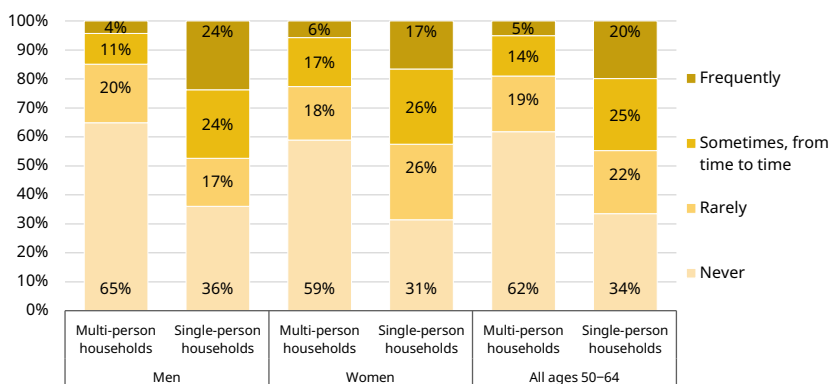


Note: The share of single-person households out of all households in the same time period. The poverty line is defined as half of the median income, based on survey data.

Source: Shavit Ben-Porat and John Gal, Taub Center | Data: CBS

The study's findings also show substantial social and emotional gaps. For example, feelings of loneliness are very common among individuals aged 50–64 in single-person households (about 20% report frequent loneliness, compared with about 5% among those in non-single-person households), and they report lower levels of overall life satisfaction. Multivariate analyses show that employment, household income, and number of children are associated with better social well-being among those aged 50–64, while disabilities exacerbate difficulties. The study highlights in particular the role of volunteering: individuals in single-person households who participate in volunteer activities feel less lonely and more satisfied with their lives — a finding that also emerged in international comparisons. At the same time, the data show that among single-person households aged 50–64, the share of volunteers is lower and the share of those suffering from severe disabilities is higher than among their peers in non-single-person households.

### Frequency of feelings of loneliness among individuals aged 50–64, 2022



Note: On the basis of self-reports by respondents to the survey.

Source: Shavit Ben-Porat and John Gal, Taub Center | Data: CBS

The researchers emphasize that while the welfare system recognizes the many needs of single-person households aged 50–64, in the absence of specific policies and dedicated welfare programs, social workers in local welfare departments struggle to provide them with comprehensive and tailored care. In light of this, the researchers propose several steps and policy options that could be adopted to address the needs of single-person households in midlife who suffer from personal and social hardships. These include: appointing a coordinating body to oversee services for this population; providing specialized training for social workers to work with people living alone; and promoting the integration of single-person households into volunteer activities and the labor market.

In this study, the researchers sought to highlight a population group that suffers from social isolation and a lack of support networks. This group is growing rapidly, yet it does not receive adequate attention from the welfare system. The findings reinforce the understanding that the challenges facing single-person households in midlife are multidimensional and require tailored responses on the economic, social, and health levels. In addition, dedicated programs in housing, employment, and volunteering could significantly improve their quality of life.

In view of the data presented in the study, they feel that it is essential for state institutions to develop comprehensive and long-term national policies to ensure that those who live alone are not neglected and that their needs and hardships are properly addressed.



The Taub Center for Social Policy Studies in Israel is an independent, nonpartisan, socioeconomic research institute based in Jerusalem. The Center conducts high 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. It was established in 1982 under the visionary leadership of Herbert M. Singer, Henry Taub, and the American Jewish Joint Distribution Committee.



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