

Press Release

As Israel celebrated the beginning of its eighth decade this year, the Shoresh Institution takes a look at the future with its new policy memo "Overpopulation and demography in Israel – Directions, perceptions, illusions and solutions" by Professor Dan Ben-David. Portions of this study will be presented at the upcoming Tel-Aviv University conference on future overpopulation in Israel on November 18.

Professor Dan Ben-David, president of the Shoresh Institution for Socioeconomic Research and an economist at Tel-Aviv University, highlights the following points from his study.

1. Israel has the highest fertility rates in the developed world

The Shoresh Institution findings show that Israel's fertility rate stands out in a league of its own (Figure 1). At 3.1, it is almost a full child per family more than the number two country in the OECD, Mexico.



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



2. Going in the direction of Bangladesh

With 8.8 million people at the end of 2017, Israel is already the fourth most crowded country in the OECD (Figure 2). By 2031, just over a decade from today, Israel's population is expected to reach 11.3 million people, with a density roughly equal to that of Korea – the most densely populated (but with the lowest birthrates) OECD country – today.

By 2065, the forecast is for 20 million Israelis, or 922 per square kilometer – two and a half times Israel's current population density. To give a sense of Israel's impending congestion, Prof. Dan Ben-David finds that this would make the future Israel more crowded than the current population density in all 180 countries with at least 1500 square kilometers, except Bangladesh.



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



3. Highest dependency ratio in OECD

The Shoresh Institution study shows that already today, Israel's dependency ratio (the share of non-working age population to working-age population) is the highest in the OECD (Figure 3). This problem is compounded by a couple of major factors in the Israeli case:

Low labor participation rates
First, the share of the country's working-age population that is not

participating in the labor force is greater than in most OECD countries. Hence, the burden on the remaining shoulders who do work is



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

high, and can be expected to rise substantially in the future.

- Very poorly skilled adults

Second, as a result of an education system that has been producing appreciably sub-par outcomes in international exams for years, Israel's adult population is characterized by literacy and numeracy proficiency scores that are below the vast majority of OECD countries (Figure 4). Thus, as Prof. Ben-David states, it should not come as a surprise that Israel's labor productivity is low - and falling further and further behind the developed world leaders for the past four decades while Israel's poverty rates are high.

Figure 4

Average score in literacy and numeracy proficiency

PIAAC exam, 16-64 yr olds, 2011-2014



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



4. Fertility rates highest among the most poorly educated

The Shoresh Institution study points out that the future economic burden will be exacerbated by the internal composition of Israel's fertility rates (Figure 5). The Haredim (ultra-Orthodox Jews) had an average of 6 children per family in 1980. Their fertility rates peaked at roughly 7.5 at the height of the welfare benefits in the early 2000s. Current Haredi fertility rates are just under 7 children per family, and even rising somewhat in recent years.

Muslim and Druze fertility rates fell sharply in the first half of the 1980s, with Druze rates continuing to decline over the subsequent years, eventually reaching the current



Source: Dan Ben-David, Shoresh Institution and Tel Aviv University Data: Central Bureau of Statistics and Hleihel (2017).

fertility rates of secular Jews. While Druze rates fell, Muslim fertility rates stabilized in the mid-1980s and remained steady at just under 5 children per family for over a decade and a half. The combination of welfare benefits cuts and a growing Muslim middle class were accompanied by a decline in Muslim fertility rates that continues to this day. Fertility rates among the remaining population sub-groups are below those of the Haredim and Muslims, albeit with a slight rise in the fertility rates of the secular and religious Jews in recent years.

Israel's Arabic-speaking children account for a quarter of its first graders. Their average scores in math, science and reading in international exams are below those of many Third World countries. In fact, Prof. Ben-David finds that their scores are below those of most predominantly Muslim countries. The majority of Haredi children – who account for almost one-fifth of Israel's first graders – do not even participate in the international exams. Nearly all of the boys do not study any core curriculum subjects beyond eighth grade, and even what they do study until that juncture is quite partial (no English, no science and only rudimentary math). In addition to the Arabic-speakers and Haredim, who alone account for nearly half of Israel's first graders, there is an extensive social and geographic periphery in Israel – much of which also receives a Third World education.

In other words, says Prof. Dan Ben-David, "the population groups with the highest fertility rates in Israel are receiving an education that will not enable them to support a developed economy in the future – with all of the national security implications that this will have on Israel's future ability to exist in the most violent region on the planet."



5. <u>Saturating the workforce with</u> additional unskilled workers from abroad

Though Israel is alreadv inundated with adults who received a developing world education as children, and who have since grown to become poorly skilled adults, the Shoresh study finds that the country is importing over 300,000 non-Israelis to work in Israel (Figure 6). They comprise almost one of every nine persons employed in the country's business sector.



Figure 6

* Includes legal and illegal workers

Source: Ben-David (2003) Economic Quarterly (updated) Data: Bank of Israel

6. <u>With so many poor, a much higher Israeli tax burden</u> on the most educated with the higher incomes

The huge gaps between Israel's various population subgroups are also reflected in the particularly skewed distribution of its tax base - which also provides a glimpse of the direction that the country is headed. In the case of Israel, half of the population is so poor that the total amount of income tax and social security tax that they paid in 2011 only accounted for 10% of the total collected (Figure 7). The average for the bottom five deciles in the OECD was 19%. nearly twice the Israeli share. At the other end of the spectrum, the top two income deciles accounted for one-half of the total income tax and social security revenues in the OECD while the amount borne by the top 20% of the population in Israel accounted for nearly two-thirds of the total amount collected.

Figure 7 Share of direct taxes and social security contributions paid by income deciles, 2011



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

Prof. Ben-David narrows this down further: In 2000, the bottom half of Israel's taxpayers accounted for only 1% of the country's total income tax revenue while the top two deciles accounted for 83% of the total. By 2017, revenue collected from the bottom half of the working population fell to 0%. In the top two deciles, it rose to 92%.



7. The primary route to reducing fertility rates

Professor Dan Ben-David: "The direction that Israel is currently headed is clear. It is leading to much more than severe overcrowding and overuse of the small country's very limited resources. The composition of the fast growing population is leading to an eventual outcome that will extend beyond the inhospitable to the unsustainable in terms of Israel's ability to fund its needs and protect its borders."

"While a turnaround in government policies that have encouraged high fertility rates – from the elimination of child benefits through removal of housing benefits to the discontinuing of subsidized fertility treatments for families with many children – is mandatory, it's effect will be more in terms of a signal to society of a change in national priorities since their overall impact on fertility has been marginal at best."

"The primary route to a significant change in national fertility rates lies elsewhere, in opening the education floodgates and letting the knowledge already existing in its best higher education institutions flow to every school in Israel – with particular emphasis on the areas currently receiving a Third World education. Education is not only a major factor in determining personal economic well-being. As has been the case across the developed world, and in Israel, birthrates are not immune to the profound impact that education has on living standards.

The Shoresh Institution for Socioeconomic Research, headed by Professor Dan Ben-David, is an independent, non-partisan policy research center providing evidence-based analyses of Israel's economy and civil society. The Shoresh Institution informs Israel's leading policymakers and the general public, both inside and outside the country, through briefings and accessible publications on the source, nature and scope of core issues facing the country, providing policy options that ensure and improve the well-being of all segments of Israeli society and create more equitable opportunities for its citizens.

For details, or to arrange an interview, please contact Prof. Dan Ben-David (054-4287443)

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