

BANK OF ISRAEL

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Press Release

**A section from Selected Research and Policy Analysis Notes: Arab society in Israel’s high tech sector**

* The share of high-tech employees out of total employees in Arab society is very small. In 2019, it was only 1 percent.
* The low representation of Arab employees in the high-tech sector derives mainly from gaps in human capital that accrue in the various education frameworks, from childhood through university.
* Differences between Arabs and Jews are observed not only with regard to employment in the high-tech sector, but also in the quality of employment in it: type of occupation, type of industry, and wage levels.
* During the COVID-19 crisis, the high-tech sector continued to grow and its employees were negatively impacted, on average, much less than other workers. This difference was evident particularly among Arab workers, whose number in this sector declined by 5 percent compared with the 2018–19 average, while the decline in the employment of Arabs in other industries amounted to 21 percent.
* The COIVD-19 crisis led to a rapid adjustment by high-tech employers to remote work. This has the potential to increase the accessibility of employment in the high tech sector to the Arab population, most of which lives in peripheral areas.
* Expanding the employment of Arabs in the high-tech industries is expected to contribute to economic growth of Arab society and to enable the domestic high-tech sector to realize the full potential of Israel's human capital. Therefore, it is important to continue to promote the process of integrating the Arab population in this sector.

An analysis carried out by Elad Demalach of the Bank of Israel Research Department examines the integration of Arab society in the high-tech sector. The research indicates that the representation of Arabs in this sector is very low. In 2019, only 1.2 percent of Arab employees were working in high tech industries, compared with 10.7 percent of Jewish employees. It was found that most of the gap between Jews and Arabs derives from gaps in acquiring relevant schooling. Figure 1 presents a pyramid describing various stages of education required for completing an academic degree that is relevant to employment in highly skilled professions in high tech. The bottom of the pyramid shows that the relative share of Arabs among all students in academic institutions (17 percent) is lower than their share of the young working age population (25 percent). In addition, their share among students of high tech professions was even lower, at 12 percent in 2018, and only 8 percent in 2012. Finally, the share of Arabs among degree recipients in high tech professions in 2018 was only 4 percent, and the share of Arabs among all young workers in high tech is 3 percent. This indicates that most of the gap between Jews and Arabs in employment in the high tech industries derives from gaps in acquiring relevant schooling.

Despite the difficulties and the barriers to entry, a small part of Arab employees succeeded in integrating into employment in the high tech sector, though among them as well there are gaps relative to Jews. In 2012–17, only 59 percent of Arabs employed in the high tech sectors worked in core occupations (programmers, practical engineers, and engineers), compared to 71 percent of Jews (see Figure 2). Most Arabs employed in high tech industries worked in manufacturing (54 percent), in contrast to Jews employed in high tech, most of whom worked in the services industries, which have higher revenues and grow faster. The differences between Jews and Arabs in quality of employment in high tech derive partly from observed variables such as schooling level, place of residence and age, and partly from unobservable variables such as skill and mastery of Hebrew and English.

In the COVID-19 crisis, Arab workers in the high tech sector were much less negatively impacted than Arab employees in other industries. The employment of Arabs in high tech in March–December 2020 contracted by only 5 percent relative to the corresponding period in 2018–19, compared with a decline of 21 percent in employment of Arabs in other industries; this difference exceeds the difference among Jews. Looking forward, the COVID-19 crisis led to a rapid adjustment by employers in high tech to remote work, and this has the potential to increase access to high quality employment in high tech in the peripheral areas in which most of Arabs society lives. The continued integration of workers from Arab society in high tech industries in quality technological positions is an important process that should be promoted in order to accelerate their integration in the economy and in society, and in order to enable Israeli high tech to realize the full potential of the domestic human capital.

**Figure 1**

**The High Tech Pyramid in Arab society (2018 data)\***



\*The data presented in the stages of the pyramid are taken form various sources and not a single database, so the links between them should be taken with caution.

**SOURCES:**

a Bank of Israel processing of Labor Force Surveys by the Central Bureau of Statistics.

b Cohen-Kovacs, G. and Kasir, N. (2020). “Trends in integration of Arab society in Israel in the high tech sector”, Ministry of Labor, Welfare, and Social Services.

c The Higher Education Council (2019). “The high tech revolution in Arab society”.

d Table 2.29.1 in “Students in Higher Education Institutions”, a multiyear publication by the Central Bureau of Statistics.

e Years 2012–18. Bank of Israel processing of the table, “Students in 12th grade examined in Bagrut exams and eligible for a diploma, by selected features” in the chapter on education by statistical cohort for Israel in 2010–20.

f Bank of Israel processing of Table 2.3 in the Statistical Abstract of Israel for 2019.

**Figure 2**

**Distribution of workers’ occupations out of total high tech employees in the population group, 2012-2017**



**SOURCE:** Based on Labor Force Surveys by the Central Bureau of Statistics.

High tech occupations were divided into 4 categories:

1. Core workers: (managers, workers in occupations with ICT professions, engineers, practical engineers, and technicians).

2. Administrative area workers: Those with work in business, management, legal, social, and culture; general clerks and office workers.

3. Production workers: Those working in manufacturing, construction, and similar; machinery operators, product and equipment assembly, and drivers.

4. Non-professional workers.