This human capital report, a collaboration between the Israel Innovation Authority and Start-Up Nation Central, is now in its fifth consecutive year, and conducted by the Start-Up Nation Policy Institute (SNPI) for the first time. Its goal is to highlight trends in Israeli high-tech’s demand for human capital, recognizing that this issue is the industry’s primary challenge within Israel.

The rapidly changing reality in the high-tech sphere poses a challenge to us as researchers, since the report presents a snapshot of a given period, in a global, dynamic business environment. The current report exemplifies this. As an annual report, it reflects the year 2021 – historically one of the strongest years for Israeli high-tech. Investments in Israeli high-tech companies this year broke records, with approximately $27B invested in in venture capital, further fueling the demand for skilled employees. This report’s findings indeed demonstrate a near-12% increase in the total number of high-tech employees, led by Israeli growth companies. On the flip side is the exacerbation of labor shortages – 2021 saw the highest rate of voluntary resignations in high-tech and the lowest percentage of layoffs (11.8% and 2.8%, respectively).

But in the weeks leading up to this report’s publication in June 2022, changes are already surfacing. The impending recession in the U.S. has caused a significant decrease in the capital markets and a slow-down of venture capital investments, globally and in Israel. As a result, initial signs point to a tempered demand for high-tech labor in the U.S., a moderating trend which will possibly affect Israeli high-tech as well. That being said, as a research and policy institute, our priority is responsible, methodical research. As such, here we analyze trends in labor demand for the year 2021, even if those patterns may change direction over the course of 2022.

Beyond this, we are confident that even if the rapid growth trend has peaked, the long-term trend of heightened demand for skilled labor in the innovation industry will continue in the foreseeable future. The COVID-19 pandemic accelerated the call for technological tools, bringing digital approaches to preeminence in a wide range of fields. Thus, hybrid models of remote work have become standard, and online shopping has become typical for broad segments of the population. Significant shifts such as these require a variety of solutions in the areas of fintech, business software, cyber, and more. And as the world becomes more digital, the need rises for companies, entrepreneurs, and skilled employees to develop such tools.

The Israeli economy must systematically adapt to these demands. In a labor market more reliant on software and artificial intelligence, education at the highest levels in mathematics, science, and engineering is more important than ever. With greater numbers of students embracing these subjects, labor productivity in Israel will increase over time. That said, in a report analyzing the high-tech labor force, it must be emphasized that high-tech employment is not the goal itself, but rather a means to increase labor productivity and economic prosperity in Israel. Policy measures that help integrate skilled labor within innovation-oriented companies outside of high-tech – in finance, industry, services, and trade sectors – will also lead to increased labor productivity, even if this does not directly increase the percentage of high-tech workers.

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