Boston-Israel Cyber Ecosystem Snapshot

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Brandeis International Business School 90 West, LLC

Introduction

For nearly a decade, Massachusetts¹ has been engaged in a strategic and purposeful effort—driven by government, academic, nonprofit and business leaders—to strengthen the economic ties between the Commonwealth and Israel, and put the Bay State on the radar of Israeli companies eager to expand in North America. Buoyed by its world-class educational institutions and research facilities, dynamic startup ecosystem, access to capital, time-zone proximity, direct flight to Tel Aviv and overall quality of life, the Commonwealth has successfully staked its claim as a top-tier destination for Israeli innovation and economic development. Three economic trade missions to Israel by Governors Deval Patrick (2011 and 2014) and Charlie Baker (2016), along with countless delegations and missions from other agencies and organizations, have created opportunities for direct engagement between leaders from the Commonwealth and key Israeli officials and business leaders, resulting in increasingly strong economic bonds between Massachusetts and Israel.

In few industries are those bonds more pronounced than cybersecurity—a "calling card" sector for Israeli entrepreneurs that has met its match in a robust cybersecurity hub here in greater Boston. As issues of cyber crime and cyber warfare continue to dominate global headlines, greater Boston finds itself at the center of the sector's most dynamic solutions and innovative companies. And much of the vibrancy of this ecosystem can be attributed to the presence of more than 30 cybersecurity companies founded or co-founded by Israeli entrepreneurs, many of which are recent arrivals to Boston in the past five years.

This analysis provides a snapshot in time of the economic impact of Israeli-founded cybersecurity firms in the Commonwealth, with a particular emphasis on employment. Through an apples-to-apples comparison with a major study published in 2016 by NEIBC (the New England-Israel Business Council) which examined the Massachusetts-Israel relationship across all industries, the results paint a story of significant growth in the Israel-Massachusetts cyber ecosystem that will likely continue to increase in the months and years to come.

Findings

Information technology—and cyber technology, specifically—has always been at the forefront of the Massachusetts-Israel economic relationship, according to the 2016 NEIBC study, "IT businesses take the lead on all three measures of revenue, jobs, and capital." As the economic relationship has continued to grow and evolve over the past two-plus years, Massachusetts has continued to attract Israeli-founded cyber companies, and the cyber ecosystem has driven strong job growth in the Commonwealth.

At the end of 2015, Israeli-founded cyber companies in the Commonwealth employed 2,911 workers; as of March 2018, that number had grown to more than 3,275, an increase of nearly 400 jobs in less than two and a half years. The increase in employment has been driven both by growth in companies that already had a presence in Massachusetts in 2015

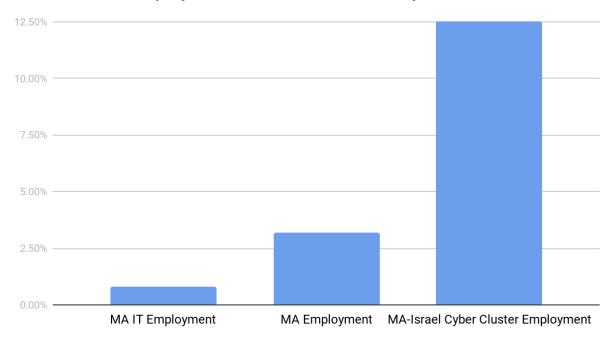
¹ For the purposes of this study, the terms "Massachusetts" (and related terms), "greater Boston," and

and the arrival of numerous new Israeli-founded companies over the past two years. Since the beginning of 2016, at least 10 new Israeli-founded cyber companies have established a presence in Massachusetts, joining more established members of the ecosystem like Akamai, CyberArk, Cybereason and RSA.

In addition to the Commonwealth's thriving innovation ecosystem and wealth of human capital, continued efforts to support Israeli-founded companies and strengthen economic ties with Israel have contributed to the influx of new companies. In June 2017, when Israeli-founded company Tufin announced its intention to open an office in Boston, CEO Ruvi Kitov said, "we could have chosen any city in the United States, but the commitment that Massachusetts has demonstrated to attracting, retaining and supporting Israeli cybersecurity companies made this an easy choice."

Together, the dozens of companies that now comprise the Massachusetts-Israel cyber cluster are growing employment at a rate nearly triple that of the Massachusetts economy overall. In adding nearly 400 new jobs since January 2016, the employment in the Massachusetts-Israel cyber cluster grew by 12.5 percent. By comparison, overall employment in Massachusetts increased by only 3.2 percent during the same time period, and employment in the information sector increased only 0.8 percent, according to data from the U.S. Bureau of Labor Statistics.





Employment Growth Since January 1, 2016 ²			
Data Point	Jan. 1, 2016	Feb. 1, 2018	Change
Total Employed in Information Industry in MA	88,700	89,400	+0.8%
Total Employed in MA	3,450,000	3,562,000	+3.2%
Total Employed in MA-Israel Cyber Cluster	2,911	3,275	+12.5%

The 2016 NEIBC study quantified the impact that Israeli-founded companies—across all sectors—on the Massachusetts economy. The study found that more than 200 Israeli-founded companies called the Commonwealth home in 2015, generating more than \$18 billion in economic activity and employing close to 9,000 people in the Bay State. As the findings in this update indicate, the cyber sector continues to be an important pillar of the Massachusetts-Israel economic relationship and is driving strong job growth.

This strong employment growth highlights the characteristics of greater Boston that make it so attractive to Israeli-founded companies: a strong network of support for early-stage companies, a research-driven innovation economy a deep talent pool, and physical proximity to Israel (including one of the few nonstop flights from the United States). The strong growth also speaks to the potential opportunities that exist in the future, and the importance of continuing dedicated efforts to strengthen the Massachusetts-Israel economic relationship.

Methodology

The methodology employed in this update is consistent with the methodology used to compile data for the NEIBC's 2016 edition of the Massachusetts-Israel Economic Impact Study, described in the appendix to that study.

Employment data for this study was collected between March 7 and March 31, 2018. To compile employment and related data, 90 West relied primarily on interviews with relevant employees of qualifying firms, data available from LinkedIn, and other publicly available sources, including news reports and industry publications. In order to calculate key ratios, 90 West relied on data from the U.S. Bureau of Labor Statistics.

In order to ensure an accurate, apples-to-apples comparison to the employment level calculated as part of the 2016 study, this update excluded—from both the raw jobs number and related growth figures—employees in Israeli-founded cyber companies that already had a presence in Massachusetts as of December 31, 2015, but which were not included in the 2016 study.

² Sources: U.S. Bureau of Labor Statistics; independent research

IV. Acknowledgements

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