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# Returns to Vocational Training Programs of the Ministry of Labor: Developing a Model for Ongoing Assessment

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# Abstract

## Background

The Ministry of Labor works to advance employment in Israel and uses a variety of tools to that end, including the development, funding, and supervision of vocational training programs. The Ministry's Vocational Training Division trains approximately 40,000 adults every year, in a variety of vocational areas, in order to improve their skills and help them integrate into high-quality employment. The Ministry's Employment Committee for the Year 2030 and Government Resolution 198: Economic Plan for 2021-2022 set targets for the extent to which vocational training programs should increase the incomes of participants: a minimum of 2% for government certification of a training program (granting a government diploma to program graduates), and a minimum of 6% for government funding of a program. (The increase in income, also referred to as the "return" on participation in the program, was defined as the added wages earned by vocational training graduates compared to their expected wages, had they not undergone vocational training).

This study is a collaboration between the Ministry of Labor and the Myers-JDC-Brookdale Institute. It assesses the returns to vocational training programs as part of the Ministry's efforts to improve the programs.

## Objective

To provide an accurate assessment of the returns to vocational training programs run by the Ministry of Labor in terms of wages and employment, and develop a practical statistical instrument based on administrative data in order to measure this return on an ongoing basis.

## Method

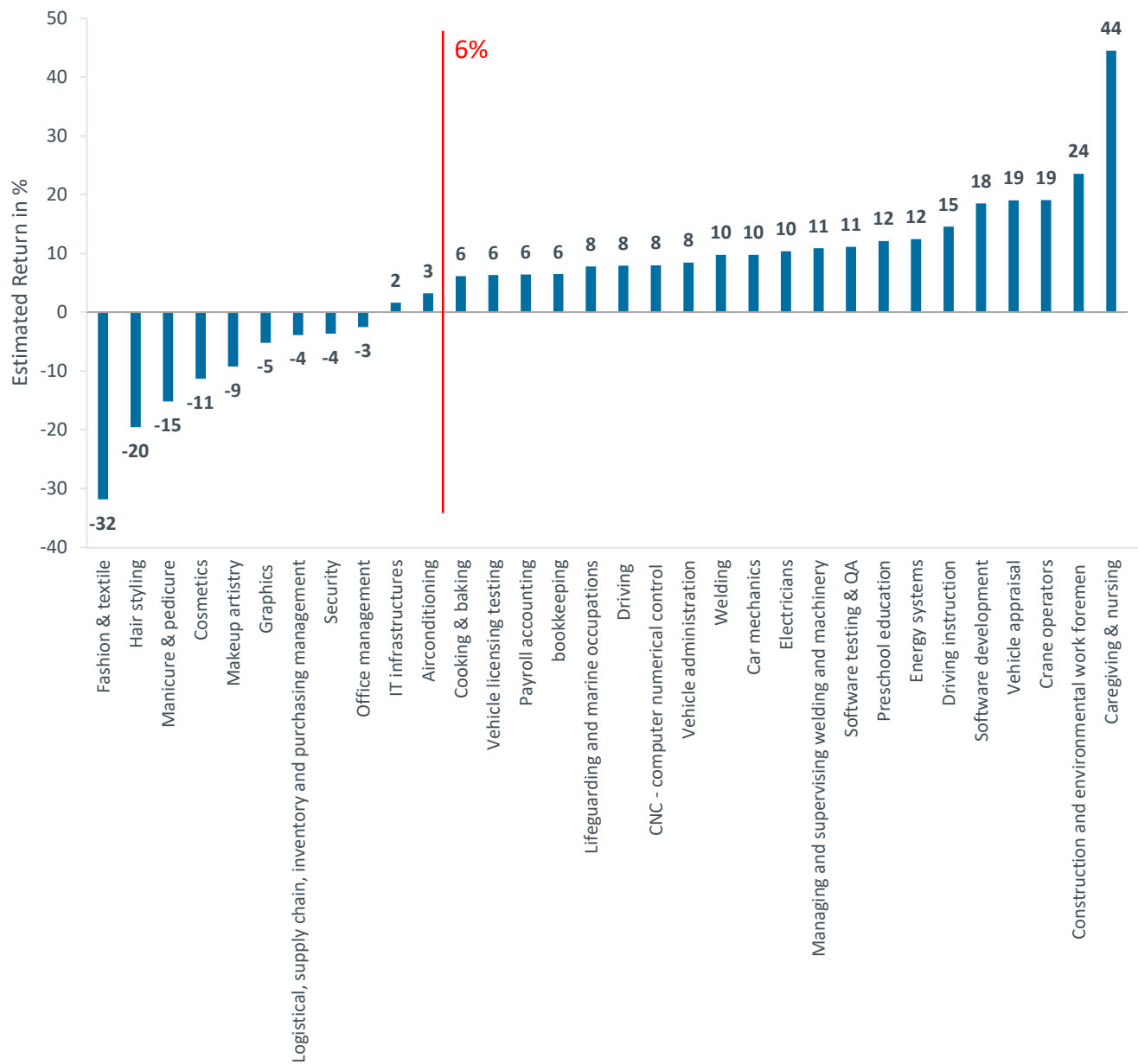
The study was conducted in the research room of the Central Bureau of Statistics (CBS), based on anonymized individual records obtained from administrative sources. For this study and additional projects, the Ministry of Labor reclassified its vocational training programs and assembled them into groups, clusters, and content areas. The present analysis was conducted at the cluster level which included similar programs. In order to estimate the correlation between a training program and income in a way that approximates causality assessment, as much as possible, the Propensity Score Matching (PSM) model was used, with unique adaptations to the set of training programs under study and the available data.

The returns to vocational training were assessed using a correlation between vocational training in 2015-2017 and income from work in 2019 (including zero income, i.e. unemployment), taking into account both gains in income and integration into employment. Control variables included demographic characteristics, months worked in the years preceding training, and income in 2014. Other models were also used to estimate the returns to vocational training: estimating in relation to the previous year (correlation between training in 2014-2016 and income in 2018), PSM radius, assessing correlation to wages (without zero income), and the Mincer model. Due to a number of research limitations, primarily selection bias, the measurements in this study do not represent the returns to vocational training with 100% accuracy, and due to selection bias, it may be assumed that they overestimate the actual returns.

## **Key Findings**

Out of the 32 clusters examined, an above-target return of more than 6% was found in 21 clusters; 77% of the graduates of certified vocational training programs in 2021 studied in these 21 clusters. (see graph below).

## Estimated Returns to Vocational Training by Training Clusters, 2019, 2015-2017 (in percentages)



Source: The authors' analysis of CBS' and Ministry of Labor's data.

Approximately 89% of the graduates of the eleven clusters in which the return failed to meet the 6% target are women, compared to 27% in above-target clusters. The percentage of Arabs in the below-target clusters (20%) is about half of their percentage in above-target clusters (40%). The percentage of ultra-Orthodox Jews in below-target clusters (8%) is similar to their percentage in above-target clusters (7%).

## **Conclusion**

As part of the reform of vocational training programs, informed by the results of this study, the Ministry of Labor decertified three clusters that had failed to meet the minimal return target: office management, manicure & pedicure, and fashion & textiles. This means that it is no longer possible to obtain a government diploma for vocational training in these clusters, and that the government will cease their funding. In 2021, some 10% of vocational training graduates studied in these programs. The Ministry of Labor continues to implement the reform and to reassess the certification and funding of the remaining clusters. These measures are expected to contribute to the focusing of government resources on vocational training that will yield higher returns to graduates.