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# **Wage and Employment Trends Among Former Employees of Industries Where Employment Levels Declined**

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# Abstract

## Background

In recent decades, we have been witness to changes in local manufacturing and in the demand for occupation-specific human capital due to technological developments and exposure to imports stemming from globalization. The issue is discussed at length in the literature, specifically with reference to the impact of these developments on local labor markets and on the demand for occupation-specific human capital. A prominent example is the impact of trade between the United States and China on the labor market in regions of the United States where many of the industries are exposed to import competition from China.

The impact of these developments on the decline in employment levels in some industries is evident in Israel as well. However, so far, the impact on the Israeli labor market has been addressed by limited research and, in particular, the long-term implications for former employees in the affected industries have not been examined.

## Study Goal

To examine whether and to what extent the contraction of employment in certain industries is related to long-term wage trends and subsequent employment prospects among former employees of those industries.

## Method

For the purpose of the study, a comparative analysis of several administrative data sources was conducted in the research room of Israel's Central Bureau of Statistics (CBS). These data sources included: Tax Authority data on employment and wages at the individual level, Population Registry data regarding personal characteristics, and population census data. The data analysis was intended to identify the relevant industries at the individual level as well as general trends.

The research method included estimation at the individual level of the rate of change in wages between the years 1995 and 2015 as a function of the rate of change in the total number of employees at industry level over the period 1995-2008, with reference to the industry where the individual was employed in 1995.

## **Findings**

The estimate shows that, on the average, the wage increase among employees in shrinking industries was lower by 6 to 7 percentage points among men, and by 11 to 13 percentage points among women, compared with the wage increase among employees in expanding industries ( $p < .001$ ). When "major industry" was added as a control variable, the correlation significantly weakened and the difference between the two groups of employees decreased to 3 to 4 percentage points among men ( $p < .001$ ) and to 4 to 6 percentage points among women ( $p = .016$ ). Also, a significant correlation was found between the contraction of an industry and the subsequent employment prospects of employees close to retirement age, but no such correlation was found in the other age groups.

## **Discussion**

The study findings show a significant negative correlation between the decline in employment levels at industry level and wage trends at the individual level. The rate of wage increase in shrinking industries was lower by 5 to 10 percentage points, compared with other industries.

The study findings support a policy aimed at assisting former employees of shrinking industries in which the demand for their profession decreased. Such assistance may be provided through employee upskilling or by the acquisition of new skills required for a change of occupation and integration in other industries. At the same time, the findings do not support a policy of barriers to imports as a means of protecting employees in affected industries.