

Manufacturing data set, 1990-1997

This file contains production and some R&D data for 77 manufacturing industries aggregated into 3-digit groupings. It also contains the aggregates for the twenty-six 2-digit manufacturing groupings, and for the total manufacturing sector.

This data set was originally compiled by Arie Bregman and Simcha Bar-Eliezer and used in their paper "The Effect of R&D Spillovers on Growth and Productivity in Israeli Industry, 1990-1994" (Bank of Israel, Research department Discussion Paper, 2001.05, March 2001). Here we have a subset of the variables used in that paper.

The data come from the sample of establishment (employing 5 or more workers) that is the basis for the annual Manufacturing and Crafts Surveys undertaken by the Central Bureau of Statistics. The same sample was used for the period 1990-1994. The period 1995-97 is based on a new sample. The earlier sample was based on the 1970 SIC scheme but in the present data set the establishment were reassigned using the new 1993 SIC scheme. Thus, the possibility exists that there is a "break" in the time-series data after 1994. This break should be more pronounced the lower the level of aggregation, and should not be perceived at the total manufacturing level.

The aggregation from establishment data to the 3-digit industry level is done by multiplying the data of each establishment by its "inflation factor" and thereafter adding all the inflated data in the industry. The inflation factor equals the inverse of the sampling probability of the establishment and it expresses the number of establishments that the establishment represents in the sample.

The last seven variables in this file were taken from the Panel of firms created by Haim Regev and Zvi Griliches. Specifically, these are weighted totals of the establishments in the Panel using the inflation factors from the yearly Manufacturing and Crafts Survey as weights (even for the R&D-related variables).

The list of variables and their description follows below.

Description of variables in file “mfg90-97.xls “

Position	Variable Name	Description
A	Grouping code	Aggregate groupings of industries, 1993 SIC
B	Sub-industries	3 SIC digit industries in aggregate groupings, 1993 SIC
C	Description	Grouping description, 1993 SIC
D	Year	
E	Local sales	Sales to local markets, million NIS
F	Exports	Exports, million NIS
G	Total revenues	Local sales + exports + income from work and repairs + income from manufacture of assets for own use + other income (securities, rentals of assets, etc.), million NIS
H	Inventory change, final product	Change in stock of products (finished and unfinished) during year, million NIS ¹
I	Inventory change, materials	Change in stock of materials during year, million NIS ²
J	Primary inputs	Raw materials, fuel, water, electricity, repair and maintenance, other, million NIS
K	Other inputs	Advertising, insurance, postal and telephone services, legal expenses, million NIS
L	Total inputs	Primary and other inputs + other services (e.g., payment to employment agencies), million NIS
M	Gross output	Total revenues + Inventory change in final product, million NIS
N	Gross product	Gross output – primary inputs – other inputs + participation of foreign factors = Wages and salaries + profits + depreciation + indirect taxes + interest + rental of building and equipment, million NIS

¹ The value of the inventory at the beginning and end of the year were computed using mid-year prices. The adjustment of the value of inventories for average yearly prices was done by means of the CPI on the level of the individual establishment for each type of inventory.

² See footnote 1.

O	Labor costs	Basic salary + supplements (COL, seniority, bonuses, etc.) + other costs (NII, benefit funds, taxes), million NIS
P	Rentals	Building and equipment rentals, million NIS
Q	Profits	Operating profits = Total revenues – business expenditures (sales costs + administrative and general expenditure + other expenditures (e.g., R&D)). Includes financing costs and return on equity, million NIS
R	Employment	Number of wage earners, owners, workers, and unpaid family members, thousands
S	Employees	Number of wage earners, thousands
T	Man-hours	Actual hours worked by wage earners including overtime but not including paid absences, thousands
U	Invest-buildings	Investment in buildings, thousand NIS
V	Invest-equipment	Investment in machinery and equipment, thousand NIS
W	Invest-furniture	Investment in furniture and office equipment, thousand NIS
X	Invest-vehicles	Investment in cars and trucks, thousand NIS
Y	Total inputs (1990 prices)	The price deflator for inputs combines each local and imported input component using weights from the 1992 Input-Output tables (at 3-digits industry level), million NIS
Z	Gross output (1990 prices)	The price deflator for output combines price deflators for the local (wholesale price) and for the export market according to the share of exports in each 3-digit SIC industry, million NIS
AA	Gross product 1990 prices)	Gross output – total inputs in 1990 prices, million NIS
AB	Total inputs (adj)	As L but using a Materials Price Index to adjust the value of inventories. See fnt. 1.
AC	Gross output (adj)	As M but using the Producer Price Index to adjust the value of inventories. See fnt. 1.
AD	Gross product (adj)	Difference between AC and AB.
AE	Stock of buildings	1.1.1992, thousand NIS

AF	Stock of equipment	1.1.1992, thousand NIS
AG	Stock of vehicles	1.1.1992, thousand NIS
AH	Stock of Capital	1.1.1992, thousand NIS
AI	Stock of R&D capital	Undepreciated sum of real R&D expenditures in last 7 years, 1990 prices, million NIS
AJ	R&D firms (inflated)	Total number of establishments with positive R&D from Panel multiplied by inflation factor
AK	R&D firms (panel)	Total number of establishments with positive R&D expenditures from Panel
AL	Man- years	Number of "full-time" employees in the establishment. This is calculated as 12 times the monthly average number of hours <i>worked</i> by employees and owners divided by 2000 hours.
AM	Labor quality	Labor quality index= $1 + [(number\ of\ engineers + 0.75 * number\ of\ technicians) / employees]$. The figure in the file is the LQI multiplied by the number of man-years
AN	Olim	Total number of Olim
AO	Shift	Total number of man-year working in second and/or third shifts

Source: Manufacturing and Crafts Survey 1995, CBS publication No. 1091.
Manufacturing and Crafts Survey 1998, CBS publication No. 1160.