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"In 1998 maquiladoras have become the number one source of foreign exchange for Mexico as a result of the sharp decline in the price of oil and the concomitant drop in the country's oil revenues."

The Maquiladora Industry in Historical Perspective (Part 1)

The maquiladora industry has grown and evolved over its 33-year life span in Mexico. Today it is one of the Mexican economy's most important sources of job creation, exports and foreign-exchange earnings. Maquiladoras have also been a positive force in the country's regional and technological development. This article, the first in a two-part series, takes a historical look at the maquiladora industry by evaluating the performance of its key indicators. Part 2 will review the industry's historical performance by sector and region.

Key Indicators

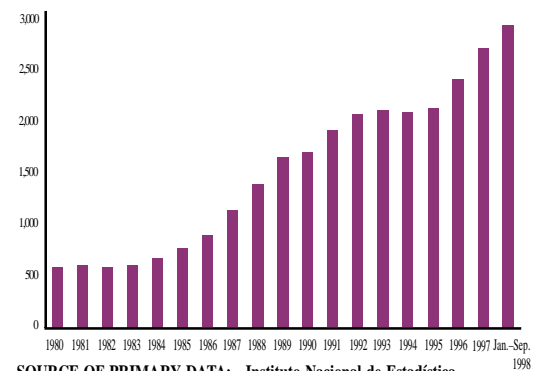
Tracking the performance of the maquiladora industry's key indicators from the early 1980s through 1998, it is evident this sector has progressed substantially.

Plants

The number of maquiladora plants grew

Chart 1

Maquiladora Plants



SOURCE OF PRIMARY DATA: Instituto Nacional de Estadística, Geografía e Informática.

from 578 in 1980 to 2,941 in the first nine months of 1998, an increase of 409 percent (*Chart 1*).

Employment

Maquiladora employment reached 994,379 workers in January–September 1998, up almost 732 percent from 119,546 in 1980 (*Chart 2*). In 1980, 85.3 percent of maquiladora employees were direct labor, 9.1 percent were technicians and 5.6 percent were administrative workers. By 1998, direct labor's share of total employment had fallen to 81.1 percent, while that of technicians and administrative workers had risen to 11.7 percent and 7.2 percent, respectively (*Chart 3*). The higher proportion of technicians reflects, to an extent, the advanced

technological production processes that now characterize the industry. Moreover, the direct labor employed by maquiladoras is no longer strictly unskilled but includes semiskilled and skilled workers as well.

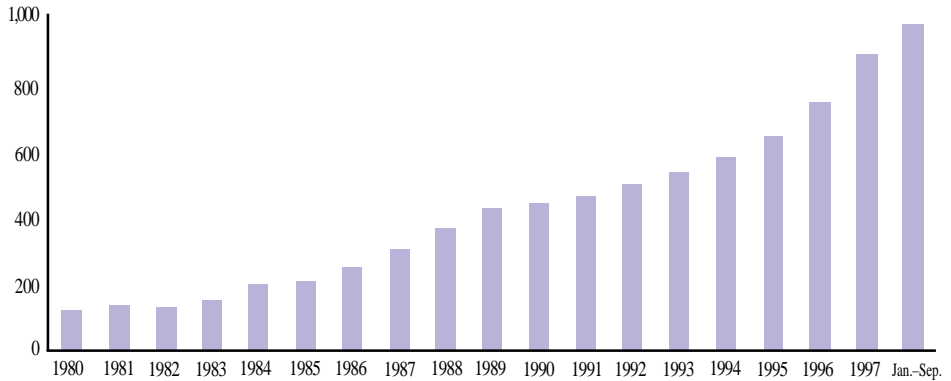
Women continue to constitute the majority of the maquiladora direct-labor workforce, but the employment share of female workers has fallen substantially. More than 77 percent of the industry's direct-labor workers were women in 1980, compared with a little under 57 percent in 1998. (Chart 4).

The maquiladora industry's contribution to Mexico's formal and manufacturing employment has increased, especially in manufacturing. In 1983, the industry provided just 2.2 percent of Mexico's formal employment and 7.2 percent of its manufacturing employment. By 1998, the industry's share in formal employment had risen to 7.6 percent and its share of manufacturing employment to almost 26 percent (Chart 5). Undeniably, maquiladoras have become increasingly important to job creation in Mexico. In fact, during the country's 1995 economic downturn, when gross domestic product shrank more than 6 percent and about a half-million jobs were

Chart 2

Maquiladora Industry Employment

Thousands of Workers



SOURCE OF PRIMARY DATA: Instituto Nacional de Estadística, Geografía e Informática.

Chart 3

Maquiladora Industry Employment by Type of Worker

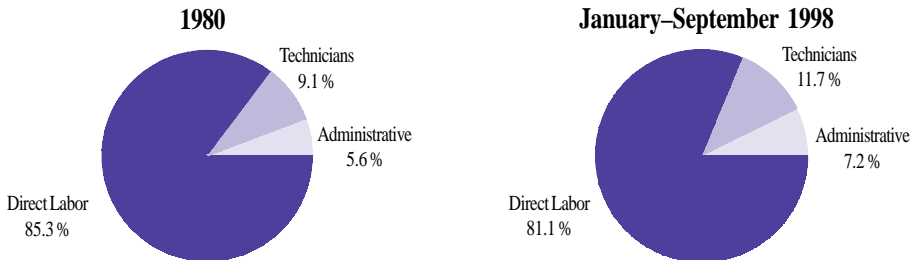


Chart 4

Maquiladora Industry Direct-Labor Employment, Gender Distribution

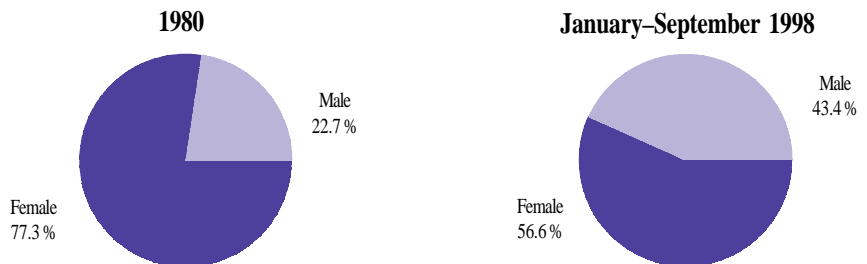
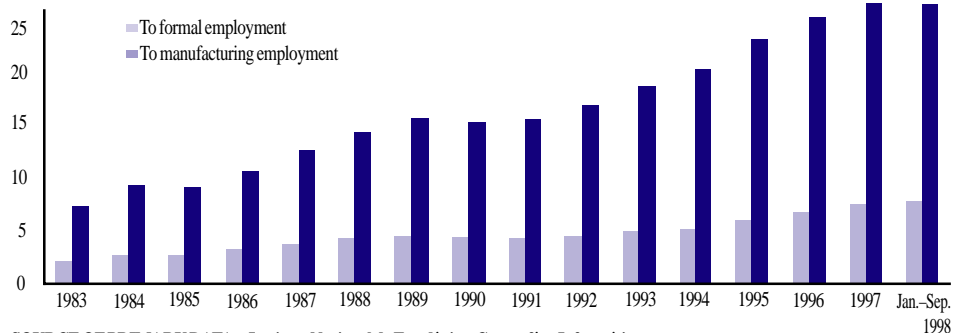


Chart 5

Maquiladora Industry Contribution to Mexican Employment

Percent



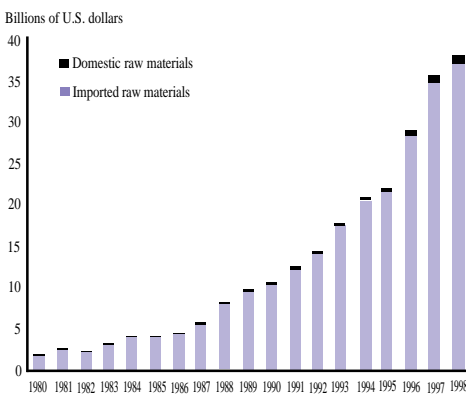
SOURCE OF PRIMARY DATA: Instituto Nacional de Estadística, Geografía e Informática.

lost, maquiladoras added more than 65,200 jobs to the economy.

Raw Materials

The value of total raw materials processed by the industry grew from under \$2 billion in 1980 to an estimated \$38.5 billion in 1998, an increase of over 2,000 percent (*Chart 6*). The share of imported raw materials has remained at around 98 percent

Chart 6
Value of Raw Materials Processed by the Maquiladora Industry



NOTE: 1998 value is estimated.
SOURCE OF PRIMARY DATA: Instituto Nacional de Estadística, Geografía e Informática.

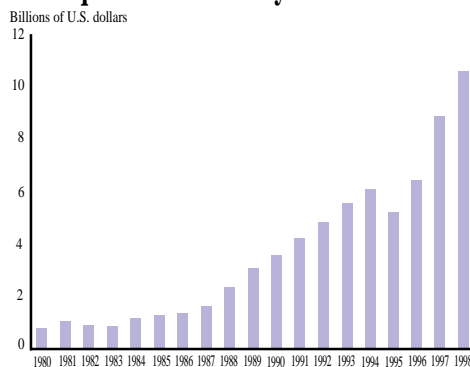
throughout 1980–98, while the share of domestic raw materials has stayed at 2 percent. The low usage of domestic raw materials should not be seen as an indication that maquiladoras are not becoming more integrated with the overall economy. A growing number of Mexican companies are providing the maquiladora industry with direct and indirect

inputs. However, some—if not all or at least the majority—of these companies are organized as maquiladoras themselves and may be using imported raw materials to produce the inputs they sell to other maquiladoras. Domestic-content statistics on raw materials do not capture these inputs, which are essentially produced by Mexican companies. As a result, the maquiladora industry’s use of Mexican suppliers is underestimated.

Value Added

Maquiladora industry value added, under \$1 billion in 1980, is expected to reach an estimated \$10.6 billion in 1998, an increase of almost 900 percent. As *Chart 7* shows, though value-added growth was positive overall during 1980–98, it dropped in 1995. This does not indicate an industry slowdown, however, as

Chart 7
Maquiladora Industry Value Added



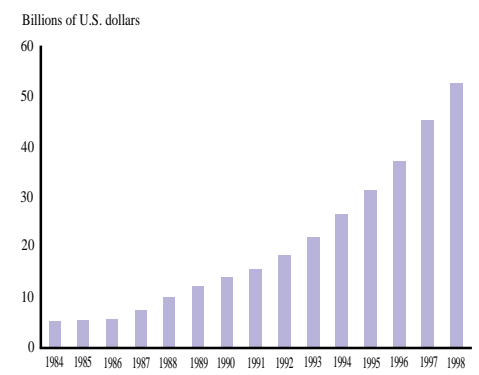
NOTE: 1998 value is estimated.
SOURCE OF PRIMARY DATA: Instituto Nacional de Estadística, Geografía e Informática.

positive growth in other indicators show. Rather, the decline in value added reflects the impact of the December 1994 peso devaluation on its dollar-denominated value in 1995. In fact, when measured in real pesos, value added in 1995 rose 14.5 percent.

Exports

The maquiladora industry exported goods worth about \$5 billion in 1984, the earliest year

Chart 8
Maquiladora Industry Exports



NOTE: 1998 value is estimated.
SOURCE OF PRIMARY DATA: Banco de México.

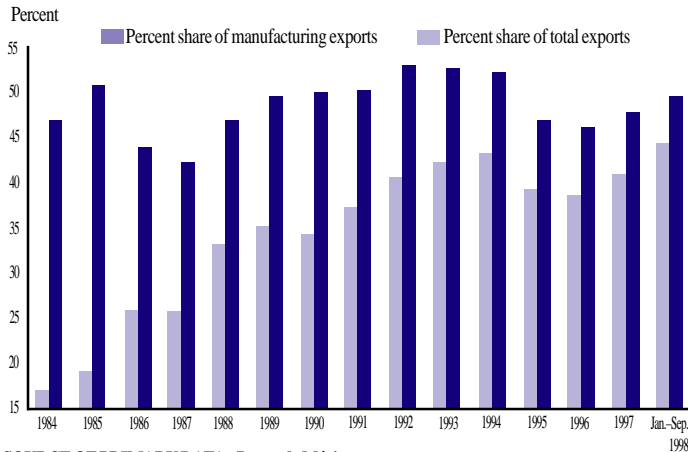
for which there are official statistics for this indicator. Maquiladora exports in 1998 are expected to reach an estimated \$52.7 billion (*Chart 8*). The industry’s consistent export growth has positioned it as a key sector in Mexico’s overall trade. Maquiladora exports now constitute 44.2 percent of all Mexican exports, up from only 17 percent in 1984. Moreover, their share in

manufacturing exports has been consistently high. In fact, in 1991–94, maquiladoras produced more than half of Mexico’s manufactured-goods exports. In 1995, nonmaquiladora manufacturing exports rebounded significantly as a result of the 1994 peso devaluation, driving down maquiladora exports to their 1984 level of 46.7 percent. However, due to the maquiladora industry’s vibrancy since 1995 and a slower growing nonmaquiladora sector, in 1998 maquiladora products made up almost half (49.4 percent) of Mexico’s manufactured-goods exports (*Chart 9*).

The maquiladora industry’s prominent role in Mexican trade has made it one of the country’s largest generators of foreign exchange. In the early 1980s the industry surpassed tourism as the second-largest source of foreign exchange, trailing only the oil sector. In 1998

Chart 9

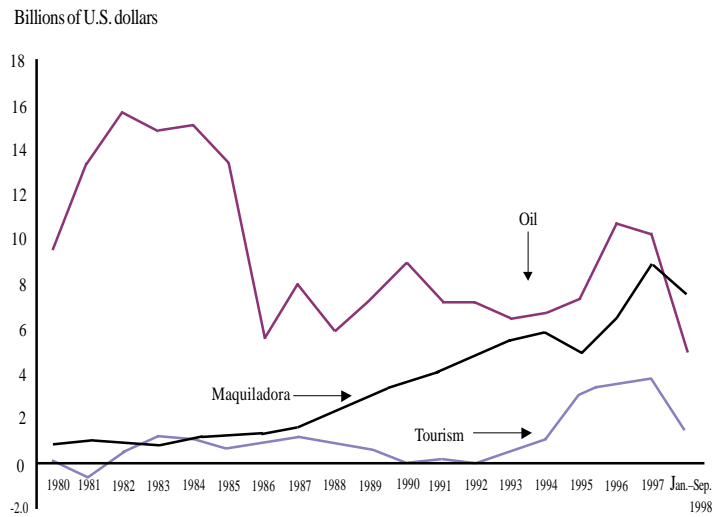
Maquiladora Exports' Participation in Mexico's Trade



SOURCE OF PRIMARY DATA: Banco de México.

Chart 10

Top Foreign-Exchange Generators for Mexico



SOURCE OF PRIMARY DATA: For the oil sector, data through 1987 is PEMEX; remaining oil data are from Banco de México, Secretaría de Hacienda y Crédito Público and Instituto Nacional de Estadística, Geografía e Informática. Maquiladora and tourism data are from Banco de México.

maquiladoras have become the number one source as a result of the sharp decline in the price of oil and the concomitant drop in Mexico’s oil revenues (*Chart 10*).

—Lucinda Vargas
Senior Economist

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