

# hacerlo mejor



MEXICO'S PRODUCTIVITY INDEX

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Productivity means doing more with the same or doing the same with less. Simply put, being productive is doing it better. With the aim of recognizing Mexico's approach in productivity, CIDAC elaborated the report *Doing It Better: Mexico's Productivity Index*, which classifies Mexican states according to their productive efficiency. It also shows the evolution of productivity within the country and compares it with other nations around the world.

As part of this analysis, state results were also compared with different socioeconomic variables: investments, poverty, size of informal market, infrastructure, etc. Eventually, the investigation provides a sectorial and regional analysis that allows an understanding of the differences in each state's productivity rate.

This report offers an analysis in the evolution of Mexican productivity and compares it with other countries. It also presents the Mexican Productivity Index, which calculates the efficiency in which inputs – labor and capital – are used throughout each state. Finally, it provides a sectorial analysis that allows an understanding of the differences in each state's productivity.

### **Productivity in Mexico**

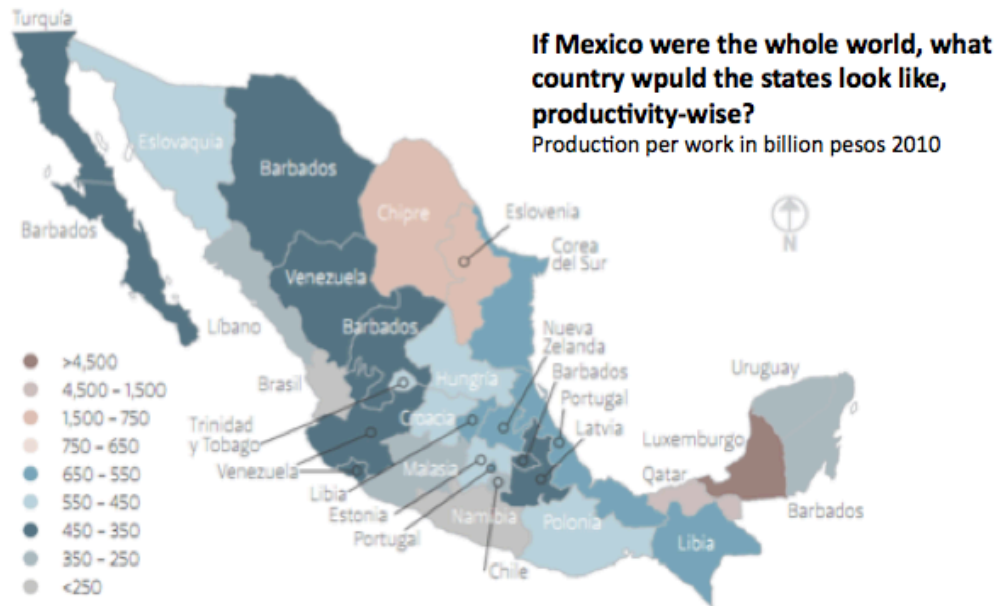
In the last two decades, productivity in Mexico has stalled, due to it being one of the most affected variables in economic crises. Throughout time, the Tequila Crisis at the end of 1994, the U.S. recession that affected Mexico during 2001 and the recent economic world crisis from 2008-2009 substantially affected the working productivity in this country.

If we add the figures of Mexican productivity's growth rates from 1991 to 2009, the accumulated numbers scarcely reach 2.1%. This means that the product of an average Mexican worker in the past 18 years has barely grown at all.

On the other hand, several countries have substantially increased their productivity rates. For instance, regarding the 1991-2009 period, there was an 82.8% increase in South Korea and a 64.2% rise in Ireland.

The aforementioned low productivity rates mean that it takes five Mexican workers to produce the same as a one Irish. Likewise, a single Australian can produce as much as four Mexicans and a Spaniard can produce the same as three Mexicans.

Mexico presents significant challenges regarding productivity. In addition to considerable lags compared to other countries, productivity is unequal among states.



Source: Produced by CIDAC

With the purpose of understanding the differences in productivity among Mexican states, CIDAC elaborated the Mexican Productivity Index. This report evaluates the amount of inputs used in each state along with its final production. Those which better employ the available resources have a higher productivity. According to this, we classified states in Very High Productivity, High Productivity, Medium Productivity, Low Productivity and Very Low Productivity.

For the elaboration of the index, the two most important inputs in the production process were taken into account: labor and capital. The former was defined as hours worked and the latter, as machinery and infrastructure used to generate goods and services.

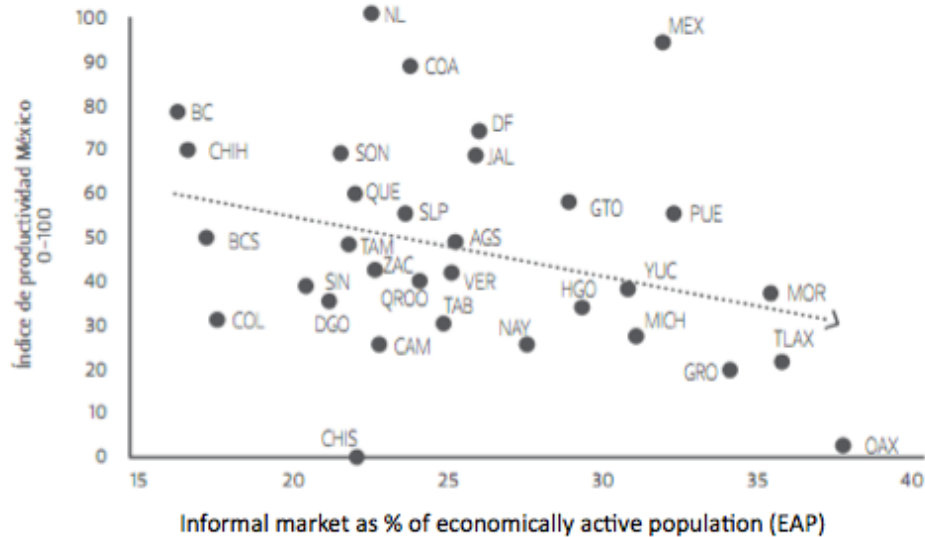
ÍNDICE DE PRODUCTIVIDAD MÉXICO								
RK 2009	ESTADOS	IPM 1999	IPM 2004	IPM 2009	NIVELES DE PRODUCTIVIDAD			
					1999	2004	2009	1999 VS 2009
1	NL	95	100	100	Muy Alta	Muy Alta	Muy Alta	↔
2	MEX	72	74	93	Alta	Alta	Muy Alta	↕
3	COA	63	67	88	Alta	Alta	Muy Alta	↕
4	BC	100	66	78	Muy Alta	Alta	Alta	↔
5	DF	79	50	74	Alta	Media	Alta	↔
6	CHH	64	57	69	Alta	Media	Alta	↔
7	SON	76	77	68	Alta	Alta	Alta	↔
8	JAL	47	66	68	Media	Alta	Alta	↕
9	QUE	47	54	59	Media	Media	Media	↔
10	GTO	34	43	57	Baja	Media	Media	↕
11	SLP	41	43	55	Media	Media	Media	↔
12	PUE	44	47	55	Media	Media	Media	↔
13	BCS	41	58	49	Media	Media	Media	↔
14	AGS	42	58	49	Media	Media	Media	↔
15	TAMPS	67	69	48	Alta	Alta	Media	↔
16	ZAC	28	21	42	Baja	Baja	Media	↕
17	VER	17	35	41	Muy Baja	Baja	Media	↕
18	QROO	40	41	40	Media	Media	Baja	↔
19	SIN	48	35	38	Media	Baja	Baja	↔
20	YUC	17	26	38	Muy Baja	Baja	Baja	↕
21	MOR	27	26	37	Baja	Baja	Baja	↔
22	DGO	23	30	35	Baja	Baja	Baja	↔
23	HGO	38	28	34	Baja	Baja	Baja	↔
24	COL	24	33	31	Baja	Baja	Baja	↔
25	TAB	5	36	30	Muy Baja	Baja	Baja	↕
26	MCH	32	30	27	Baja	Baja	Baja	↔
27	NAY	13	20	25	Muy Baja	Muy Baja	Baja	↕
28	CAM	11	0	25	Muy Baja	Muy Baja	Baja	↕
29	TLAX	8	23	22	Muy Baja	Baja	Baja	↕
30	GRO	7	26	19	Muy Baja	Baja	Muy Baja	↔
31	OAX	0	1	2	Muy Baja	Muy Baja	Muy Baja	↔
32	CHIS	16	4	0	Muy Baja	Muy Baja	Muy Baja	↔

- Very High
- High
- Medium
- Low
- Very Low

Up arrow: it increased at least one level  
 Equal arrow: it remained the same  
 Down arrow: it decreased at least one level

First, in Mexico one can observe that entities that have higher informality levels present lower levels of productivity. States with high informality levels such as Oaxaca and Tlaxcala present low productivity levels according to the Mexican Productivity Index.

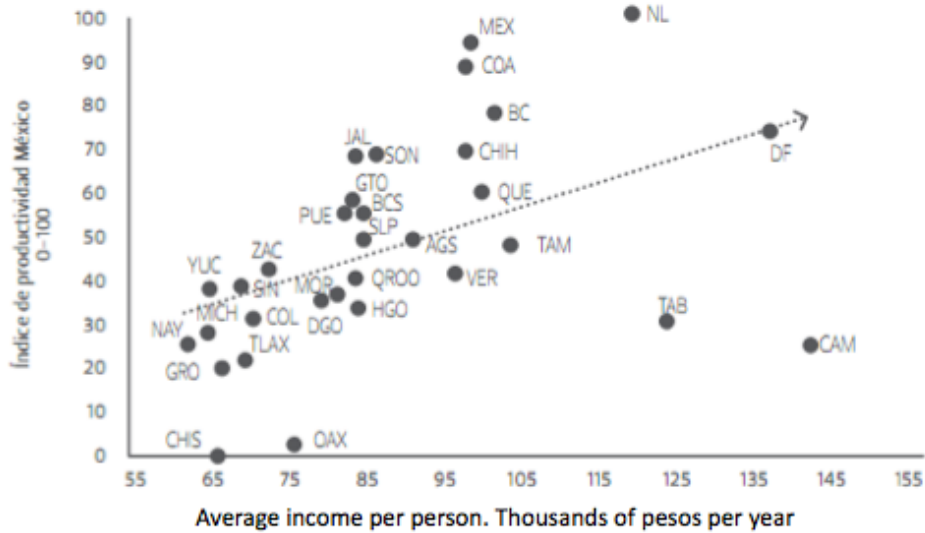
### A higher size of informal market equals lower productivity



Source: produced by CIDAC along with data from INEGI and IMCO

On the other hand, when comparing the Mexican Productivity Index with employees' salaries, CIDAC found out that states with higher productivity levels are the ones with higher incomes. Mexico City, for example, is one of the best positioned entities in the Mexican Productivity Index and it also has higher income levels than most states in the country.

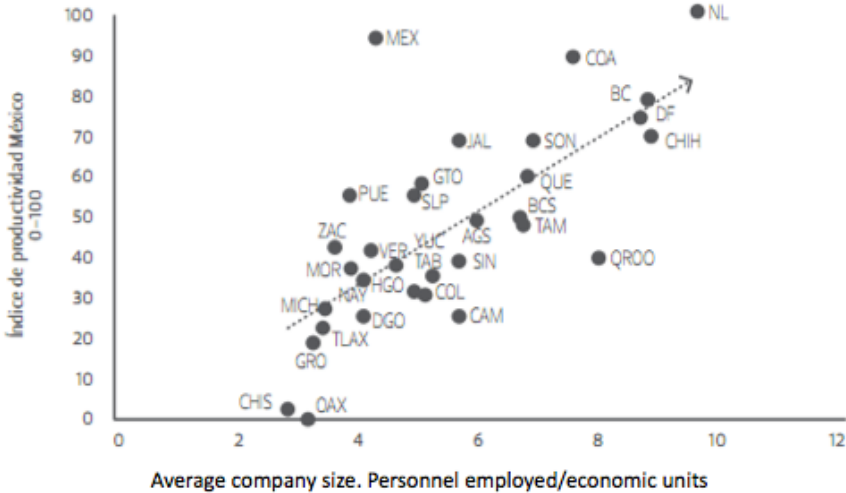
### Higher productivity equals higher income



Source: produced by CIDAC along with data from INEGI

Thirdly, the report found that those states with larger companies have a higher productivity. This is partly explained due to the existence of economies of scale in major companies, since they can reduce their costs in order to ensure a higher production. However, there are few conditions in which small and medium-sized companies can increase their productivity. According to the Mexican Productivity Index, Nuevo León, the entity which averages most of the larger companies in the country, is also the most productive state.

**Having larger companies equals higher productivity**

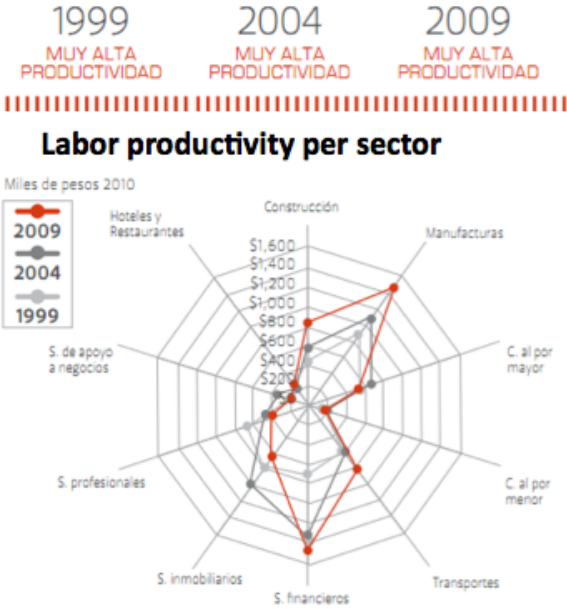


Source: produced by CIDAC along with data from INEGI

In the report published in Spanish, one can find labor productivity results occurring in different sectors, regions, as well as a comparison between labor productivity in each state in relation to other countries in the world. The states with the higher productivity levels, as well as the two lowest entities, are shown below.

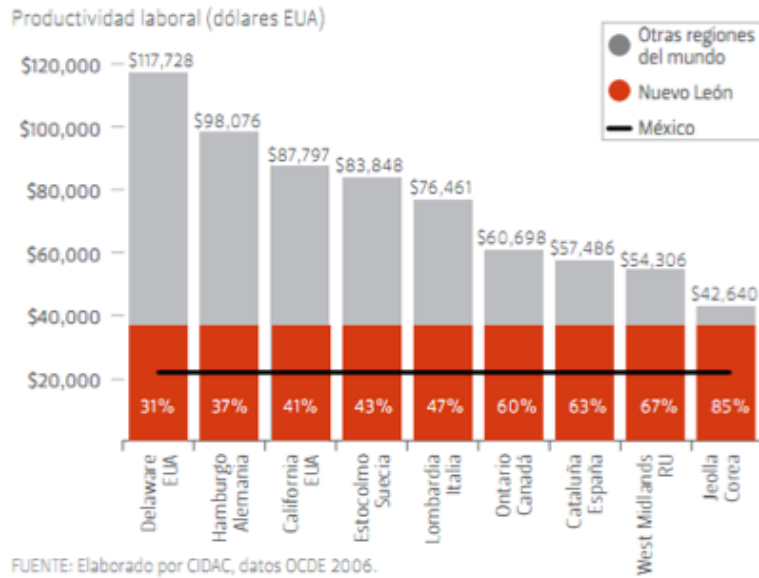
**Nuevo León**

Productivity in the Nuevo León state surpasses the national average in all areas: financial services are a highlight since they more than double the average labor productivity in that particular field. Nevertheless, four sectors decreased their productivity in the past 5 years.



A single Nuevo León worker barely produces a third part of a worker from Delaware, USA. Additionally, the productivity of Nuevo León worker represents 85% of productivity from a worker in Jeolla, South Korea.

## Nuevo León productivity compared to the rest of the world

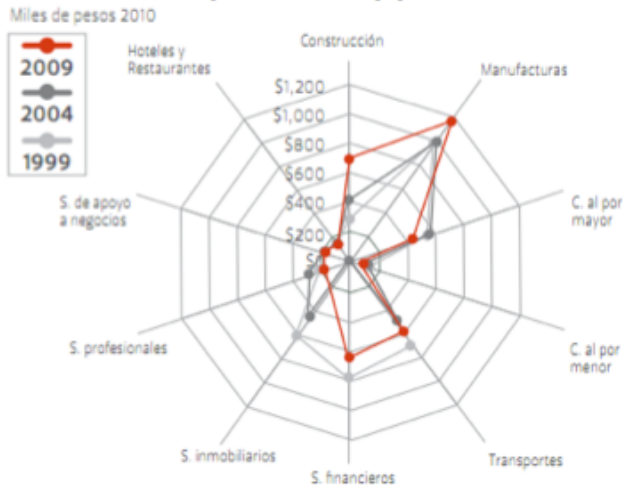


### State of Mexico

In the State of Mexico, the manufacturing sector is above the national average of national productivity by a 3% margin. The aforementioned area increased its productivity since 2004 in 18%.



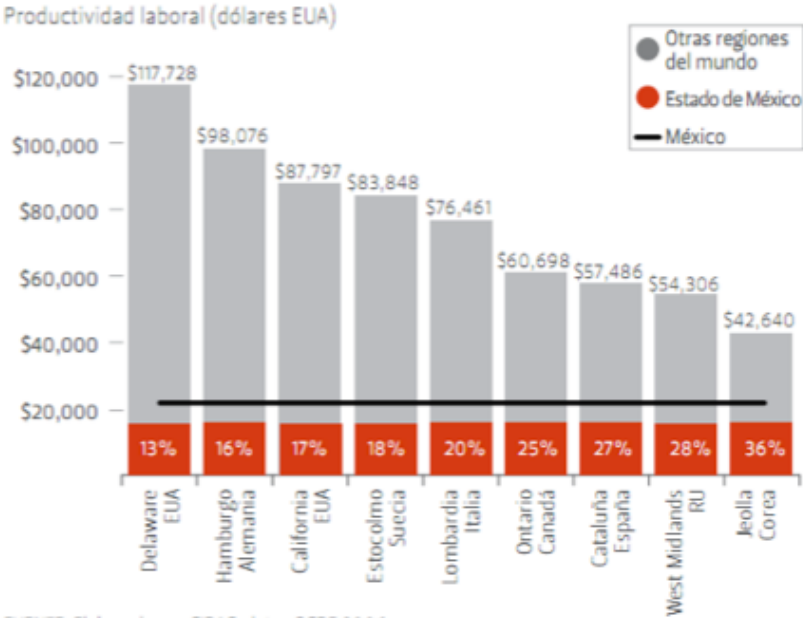
### Labor productivity per sector





Five workers from the State of Mexico produce as much as a one worker from Lombardy, Italy. And it takes four State of Mexico to produce as much as someone from Ontario, Canada.

### State of Mexico’s labor productivity compared to the rest of the world



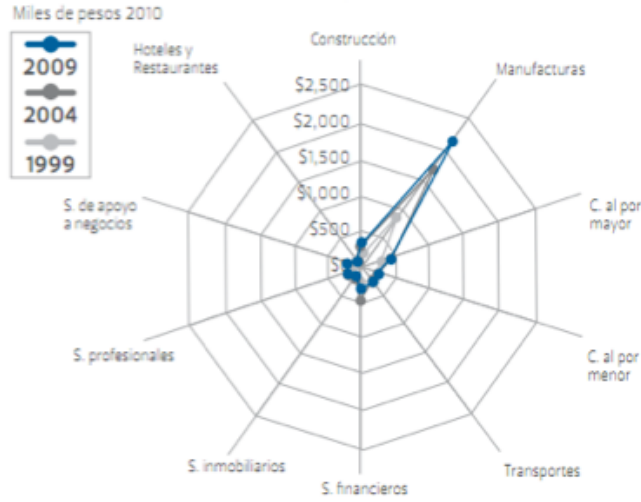
FUENTE: Elaborado por CIDAC, datos OCDE 2006.

#### Oaxaca

Labor productivity in the state of Oaxaca is the worst in every sector – except manufacturing. In the last 5 years, the sector that decreased its productivity the most is the business support service. Manufacturing presented the highest growth in the state’s labor productivity.

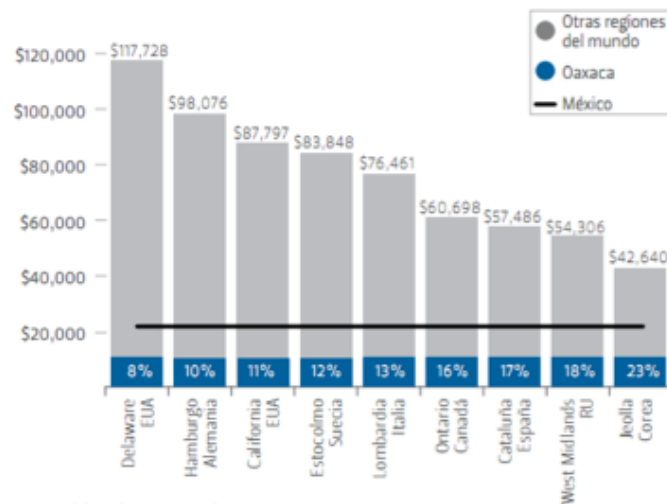
1999 MUY BAJA PRODUCTIVIDAD      2004 MUY BAJA PRODUCTIVIDAD      2009 MUY BAJA PRODUCTIVIDAD

### Labor productivity per sector



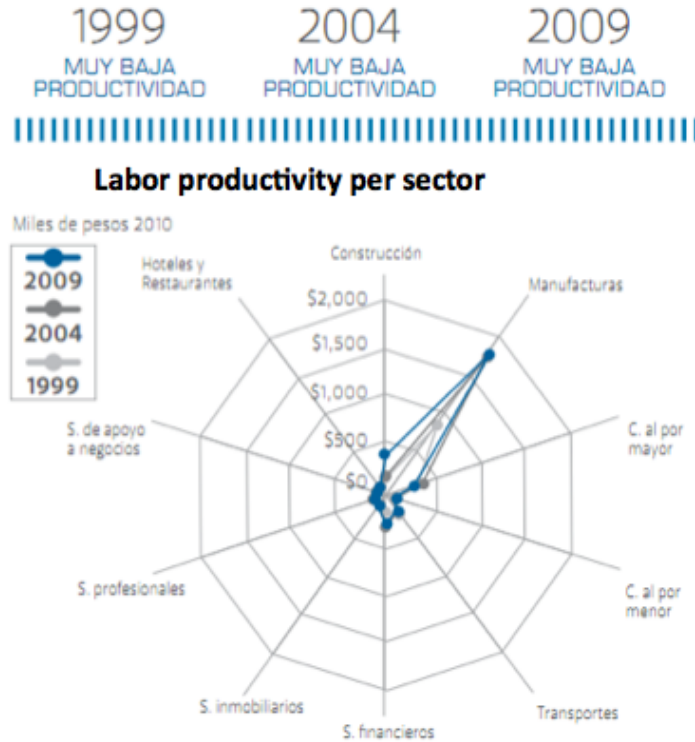
A worker from Oaxaca produces the tenth part as one from Hamburg, Germany, while his labor productivity represents 17% of the productivity of a worker from Catalonia, Spain.

### Oaxaca labor productivity compared to the rest of the world

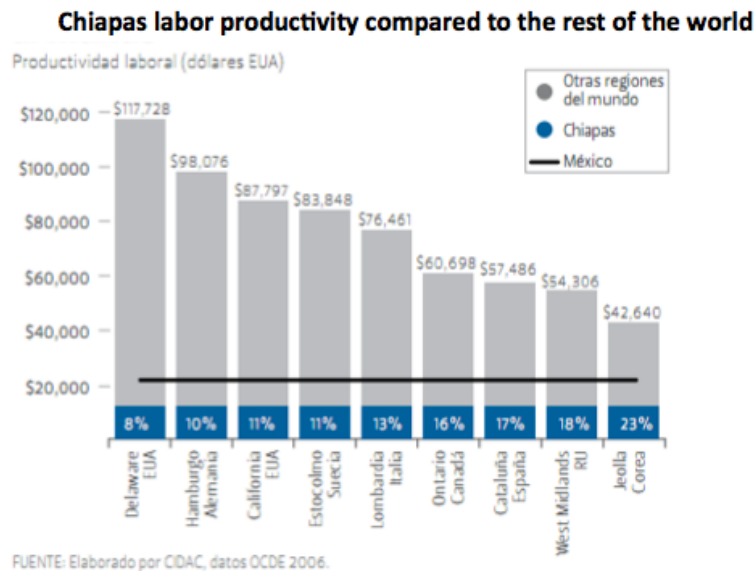


## Chiapas

Within Chiapas, only the manufacturing sector's labor productivity is above the national average. However, growth of the aforementioned sector rose only to a mere 3%.



Productivity of a Chiapas worker is the same as 8% of the productivity from a Delaware worker, 10% from a Hamburg worker and 23% from a Jeolla worker.



#### About CIDAC

*Centro de Investigacion para el Desarrollo A.C.* is a non-profit independent think tank devoted to the study and interpretation of Mexican reality and the presentation of viable proposals for the development of Mexico in the medium and long term. It formulates proposals that: contribute to strengthening the rule of law and creating conditions which encourage the economic and social development of Mexico; that enrich public opinion; and that contain the elements necessary to be useful in society's decision-making process.