5 Overview of the Laguna garment cluster

In the previous chapter, the garment industry in La Laguna was introduced as an important industry and local employment creator, initially in the urban core but increasingly also in the region’s rural municipios. This chapter builds on that introduction and examines in greater detail the structural characteristics of the garment industry in the region. Data obtained through the baseline survey, complemented by observation and interviews, is used to present a factual outline of the structure of the garment cluster and its individual firms. This is done from a comparative perspective so as to be able to position the Laguna cluster in relation to other garment clusters, and to see whether and – if so – in which ways La Laguna is a typical garment cluster. Also, some basic insights are provided with regard to its approximate position within the post-NAFTA US-Mexico context.

Section 5.1 starts off the examination of the Laguna cluster by scrutinising its self-proclaimed ‘Jeans Capital’ status through a focus on the cluster’s product orientation. Section 5.2 investigates the cluster’s market orientation and sheds light on the relative importance of the export and the domestic market as destinations for the garments produced in the region. The attention will then be turned to the cluster’s key players. Section 5.3 deals with the structure of the regional industry in terms of company characteristics such as size, ownership and location. Section 5.4 digs further into the garment firms and deals with their single- versus multi-plant company structure, dissecting them to the level of individual factories or production units. Section 5.5 explores the position of labour within the garment industry in the Laguna region, followed by a brief overview of garment clusters in India, Peru and Mexico in Section 5.6. The insight into the characteristics of comparable clusters will show whether it is possible to distil the structural elements of a ‘typical’ garment cluster and whether La Laguna contains these elements. The conclusion at the end of the chapter summarises the main findings and seeks the essential connections to the literature on garment clusters.

5.1 Introducing the new ‘Jeans Capital’

How new is the ‘new’ Jeans Capital of northern Mexico? The first textile and apparel-related industrial activity in the region can be traced back to the late nineteenth century. However, modern, factory-based apparel production in the region has its roots in the late 1940s. At that time, the first apparel factory started to produce jeans under its own brand (El Venado) for sale in northern Mexico and later the US. Within a couple of years a few other local factories were established, and they too specialised in the production of what in the industry is referred to as ‘bottoms’ (i.e. various types of pants, dress slacks and especially jeans) for the market in northern Mexico. Several garment pioneers in the region are Lebanese immigrants; many are still in the business or have been succeeded by their children.
During those early days, the jeans industry was directly linked to the cotton produced in the region. Local garment factories used primarily local cotton. In fact, some of the industrial pioneers in the region started their business as a means of adding value to the cotton produced on their own land. From then on, the local industry expanded steadily. By the early 1990s the local production base was considerable and according to official data local garment factories employed over 16,000 employees (INEGI, 1995; see also Chapter 4). The bulk of garments produced in La Laguna was sold in the local or regional market. When Mexico joined GATT in 1986 and the Mexican market opened up to imports, La Laguna suffered, as did other garment producing regions in Mexico (see Chapter 3). The domestic market was swamped with cheap imports from Asia and the sales of La Laguna’s companies in the domestic market plummeted. As a consequence many local garment factories went out of business. In search of an alternative, some local companies sought and found entrance into the US export market. This shift in market orientation also entailed a conversion from integrated garment manufacturers to pure assembly maquiladoras. Export to the US essentially meant entering into production-sharing arrangements in which La Laguna garment companies assembled pre-cut fabric and used trim items shipped from the US. What remained was the region’s product specialisation: blue jeans. The connection with locally produced cotton was severed, as the use of imported denim from US denim mills was imperative due to the duties levied on the use of Mexican fabric. The disconnection between local cotton and locally produced denim trousers still exists today (see also Box 4.2).

Since then, and based on the assembly of jeans for export, La Laguna’s garment industry has boomed: in the early 1990s ‘only’ 500,000 garments were produced each week, whereas at the end of the decade production capacity had reached 6.5 million a week. Especially since the coming into effect of NAFTA, production volumes have grown very rapidly. Throughout this dramatic expansion the original product orientation has been retained. Hence the region’s self-proclaimed status of ‘New Jeans Capital of the World’. In adopting this title, the local industry assumed the status that, as mentioned in Chapter 3, until recently had belonged to El Paso, Texas. ‘Jeans Capital’ may sound overly boastful, but almost all companies in the region dedicate part if not all of their production capacity to the production of blue jeans. Among garment companies in the region, 81% cite a denim garment as its main product. Figure 5.1 illustrates the dominant position of jeans as the main product of the Laguna garment cluster. Only a few companies produce casual pants, and men’s shirts and knitwear (tee-shirts, jogging slacks or sweatshirts) are also produced. Interestingly, most knitwear is produced by a few foreign-owned production facilities, making these facilities exceptions within La Laguna’s jeans
bulwark. Other exceptional cases are a specialist contractor that produced backpacks and another that produced only men’s dress shirts.

Complete specialisation in non-denim garments is rare. It is slightly more common to combine jeans with other types of garments. The most common combination is jeans and casual pants. Other secondary products are men’s shirts, jackets, sports shorts, sweaters and hospital garments. These products generally make up only a small percentage of total production. Clearly, even the complementary garments produced in La Laguna are mostly basic, standardised garments. The Laguna cluster is firmly positioned in the mass-produced, standardised segment of the market. By the end of the 1990s overall product diversification out of the jeans segment was very limited. However, some shifts within the denim segment can be noted, as will be discussed further in Chapter 7.

Production in the Laguna region also illustrates the pervasiveness of segmentation based on price and quality and of branding. At the end of the 1990s, locally produced jeans ranged from cheap, relatively standard and low quality to more sophisticated and high quality: clients ranged from Kmart and Wal-Mart to Tommy Hilfiger and The Limited. However, the centre of gravity of local production lies in the low- to mid-market range. In relation to the general sourcing and upgrading pattern outlined in Chapter 2 this confirms La Laguna position as a newcomer exporter that starts in the low-quality, low-price ranges of the market and may gradually shift to higher-end products and market ranges. Chapters 7 and 8 will deal with upgrading and buyer succession in La Laguna in greater detail.

5.2 Market orientation
The conversion from locally integrated domestic market production to production sharing for export discussed above has been almost complete: virtually all jeans produced in La Laguna are destined for markets outside Mexico. Moreover, export from La Laguna is almost a synonym for export to the US: an estimated 90-95% of local production is destined for the US market. With the exception of one company that occasionally exports small volumes to Europe and Japan, all export production is destined for the US market. Thus, the Laguna cluster reflects the patterns outlined for the Mexican garment industry in general in Chapter 3 (see Table 3.3). Within the national boom in garment production for export to the US, La Laguna is one of the concentration areas in Mexico. The expansion and conversion of existing companies as well as the establishment of many new firms characterise the development of the cluster throughout the 1990s. The sudden and vigorous growth is the result of the very large demand coming from the US; it also explains the cluster’s narrow orientation towards the US market. Between the passage of NAFTA and 2001, demand mostly exceeded local production capacity and as a consequence garment exports to the US expanded almost effortlessly. The market orientation of the cluster appears to be not so much a result of strategic decisions taken by individual firms as the logical and comfortable outcome of an overwhelming, geographically concentrated demand surge. This market orientation and particular growth pattern is reflected in the position of the Laguna cluster as a contracting cluster. Most companies function as contractors for US buyers and produce exclusively for export. Many do so through a direct sourcing relation with a global buyer, while others are subcontractors that export indirectly and rely on the mediation of another firm. La Laguna is best characterised as an export bulwark.
The narrow focus on contracting for the US market can partly be explained by the nature of the domestic market. The dual structure of Mexico’s domestic market plays a role in pushing local producers to engage in exports. As the high-end Mexican market is served by large, mainly US-based buyers while the much larger but unstable low-end segment is flooded with cheap Asian goods and domestic counterfeits, it offers limited opportunities for domestic companies. Positioning a company on this market is a difficult and risky task. This, combined with the huge pull exerted by US garment buyers, has lead to the virtual abandonment of the domestic market.

Still, some domestic production does take place and, though it is of limited importance, it cannot be ignored. A few export companies in the region also serve the domestic market and most leave only a small part (2-10%) of total production in Mexico. In these cases domestic market production is generally seen as a way of balancing the ups and downs in the export market or as a means to gain experience in the management of full-package production. For efficiency reasons, the type(s) of products produced for the domestic market often are the same as those produced for export. In fact many companies used to use the inputs provided by their US clients for their own brand production, since clients often make overgenerous estimates of necessary amounts of trim items as well as fabric. Domestic market garments often bear the label of the local company. Only one company in the region attaches its own label to a specific and separate product type, namely children’s wear.

Not only is the combination of export with domestic market rare in La Laguna, but domestic market production in general is of limited importance. Only two sample companies dedicate all of their production to the domestic market. Both companies produce a wider array of products, including not only men’s and women’s denim bottoms, but also men’s shirts and women’s blouses. In general, domestic market production is of a more run-down, small-scale sweatshop nature, but it is registered: close scrutiny and digging beyond the official industry listings revealed only a few hidden, semi-clandestine domestic market factories. As will be discussed in Chapter 7, some linkages may occasionally exist between the export factories and the domestic market sweatshops. In general however linkages between formal and informal companies are limited, not in the least because informality in this industry in La Laguna is limited. This may be due to crowding out by the export factories.

5.3 Firm characteristics
How is the cluster’s specialisation in the production of mass-produced, basic garments for the US market reflected in the structure of the industry and the characteristics of local firms? Though local export production for the US market pre-dates NAFTA, the cluster’s export orientation became much more pronounced after the trade agreement came into effect. Similarly, NAFTA and the post-NAFTA growth spurt have underscored the region’s specialisation in jeans. What are the most important changes to have affected the structure of the local industry over the last decade? With regard to the composition of the cluster, it is no exaggeration to say that the passage of NAFTA has had a dramatic impact. For example, the number of garment export firms in the cluster more than doubled in just four years following the passage of NAFTA.

In this section, three firm characteristics will be further looked into: ownership, firm size and locational patterns.
Ownership
During the second half of the 1990s foreign garment firms began to invest in the region. Most of the FDI in the region comes from the US; only one Asian garment firm has established a factory in the region. Some foreign-owned factories are facilities of US TNCs, such as VF Corporation and Sara Lee; others belong to large US contractors or intermediaries. Most FDI facilities are 100% foreign-owned. Mexican-foreign joint ventures are rare in the Laguna cluster. Though the arrival of FDI facilities and their increasing numbers in the years following NAFTA constitute a significant change, overall FDI is of comparatively limited importance in the region. At the end of the 1990s the vast majority of garment companies in the Laguna is in full local ownership and is owned and managed by laguneros.

Firm size
The significance of FDI facilities in the Laguna region lies in their very large scale of operation, rather than in their numerical importance. The number of employees of most FDI facilities exceeds a few hundred; spread over several factories, some even employ a few thousand operators. With the size of their factories, they underscore the on average large-scale nature of garment production in La Laguna. Several locally owned firms also have a production capacity of over 100,000 pairs of jeans a week and a workforce of over 1,000. Some of these locally owned giants were amongst the region’s pioneers. Most started out as small- or medium-sized factories and expanded little during much of their existence. This changed in the 1990s when these traditional garment producers went through an impressive growth spurt. Some more than quadrupled their production volumes in 1994-1999. Together with the newly established FDI facilities and a few successful local newcomers, they increase the average scale of operation of garment companies in the region. The mean size of the garment companies in the region is very large: 578 employees per firm (see Table 5.1). This scale of operation is much larger than one would expect in a generally fragmented industry of small-scale factories (see Chapter 1). The cluster’s specialisation in mass-produced garments and its narrow orientation towards the US market help explain this extraordinary size structure. Mass-produced garments are generally produced in comparatively large factories, and the US market is the largest garment importer in the world. Furthermore, the volume requirements of US buyers are generally very large (cf. Gibbon, 2002; see Chapter 8).

Table 5.1 gives an overview of the firm size structure of the cluster. It shows considerable variance in size. There are hardly any micro-enterprises, and even small companies are of

<table>
<thead>
<tr>
<th>Company size</th>
<th>Absolute number</th>
<th>%</th>
<th>Size class mean (no. employees)</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro (1-15)</td>
<td>1</td>
<td>1</td>
<td>13</td>
<td>Minimum firm size: 13</td>
</tr>
<tr>
<td>Small (16-100)</td>
<td>12</td>
<td>16</td>
<td>63.4</td>
<td>Maximum firm size: 5,680</td>
</tr>
<tr>
<td>Medium (101-250)</td>
<td>32</td>
<td>44</td>
<td>144.2</td>
<td>Skewness: 3.2</td>
</tr>
<tr>
<td>Large (251-500)</td>
<td>8</td>
<td>11</td>
<td>400.1</td>
<td></td>
</tr>
<tr>
<td>Very large (over 500)</td>
<td>20</td>
<td>28</td>
<td>1,751.6</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>100</td>
<td>578.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Baseline survey, 1998-1999
comparatively limited importance in La Laguna. Few companies fall into these categories and the ones that do are, on average, on the upper side of their category. Most companies in the region are medium sized and have 101–250 employees. Most of the micro, small and medium-sized companies in La Laguna were set up after the passage of NAFTA; those that did not start out as medium sized, have rapidly become such. By comparison, the group of large companies is surprisingly small.

The most notable phenomenon revealed by the table is the overshadowing of the cluster by a number of local industrial giants. There is an enormous gap between these giants and the other firms in the cluster. In fact, the true scale of operation of these giants is obscured in the classification, but clear from their mean size of over 1,750 employees. Also the skewness measure indicates a large number of large-scale outliers – for all classes, but also for the very large companies.

Locational patterns
Urbanisation benefits and the size of the workforce of many companies explain the locational preference for the cities and the resulting urban concentration of the garment industry, as discussed in Chapter 4. The dominance of the urban core and especially Torreón is such that US garment buyers, as well as journalists and academics, commonly refer to the garment cluster in La Laguna as ‘Torreón’. Strictly speaking they are selling the garment cluster short. Durango and especially Gómez Palacio play a leading role in the industry. Just over half (54%) of the total number of urban companies are located in Gómez Palacio. Torreón and Cd. Lerdo accommodate 40% and 6% of the urban companies, respectively. The structure of the industries in Torreón and in Gómez Palacio in terms of company size is similar. In both cities, the medium-sized companies make up the bulk of the businesses. Cd. Lerdo’s garment industry is not only more humble in size but its structure is somewhat off-balance. It accommodates many comparatively small factories, many of which have a domestic market orientation, but these are overshadowed by the large factories of two very large garment companies.

The development of the industry over time differs somewhat between the cities. For several decades Torreón and Gómez Palacio experienced an equally slow growth of their garment industries. But during the 1980s, it became more pronounced in Gómez Palacio than in Torreón. By 1993, approximately two-thirds of the garment producers in the region were located in Gómez Palacio. The post-NAFTA demand surge and differences in industrial and regional development and tax policies of the state governments of Durango and Coahuila, appear to have shifted the balance. In the second half of the 1990s, the growth dynamics within the urban core changed. A roughly equal number of producers established themselves in Torreón and in Gómez Palacio. However, the sizes of the new companies in both cities differ considerably, a fact confirmed by the difference in employment creation. In Torreón in 1994–1998, just fewer than 4,200 jobs were created, which means that the new companies averaged 244 employees each. In Gómez Palacio ‘only’ about 2,700 jobs were created, an average of 156 employees per establishment. Some new companies were established in Cd. Lerdo in the post-NAFTA period as well, but recent growth there is mostly due to the sizeable expansion of the two largest companies there.

The noted shift can to some extent be attributed to the establishment of FDI facilities in La Laguna-Coahuila. Most large-scale, foreign-owned subsidiaries are located in La Laguna-Coahuila, divided about equally between Torreón and the rural areas. This positions Torreón
way ahead of Gómez Palacio and Cd. Lerdo in terms of foreign investment and average plant size. In fact, the difference applies to La Laguna-Coahuila and La Laguna-Durango: FDI in the rural areas of Durango has remained scarce over the past years certainly in comparison to investment growth in the Coahuila side of the region (see also Figure 8.6). Though the pattern is no doubt a result of many coinciding factors, differences in the effectiveness of state government efforts to attract foreign investment, and to promote the regional development of their part of the Comarca, appear to play a role. The preference of FDI investments for Coahuila may well be closely linked to the effective promotional activities performed by the state government of Coahuila, as discussed in Box 4.1.

5.4 Company structure

The previous section indicated the wide variety in company sizes and pointed out the importance of exceptionally large garment companies in La Laguna. The large scale of operation of local companies is reflected in the prevalence of multi-plant companies. Companies in the Laguna garment cluster are split almost equally into single-plant versus multi-plant companies; single-plant companies are only slightly more common. These companies have concentrated all their business functions in one production facility. Most consist primarily of a shop floor with one or more sewing lines and only one small office for administrative purposes. Some do not have an office. Many single-plant companies are medium sized and the majority are Mexican-owned. It will be no surprise that micro companies and almost all small garment producers in the region are single-plant companies.

Multi-plant companies are an important group in the local garment cluster. Most of these companies have 200 or more employees. Overall they form a multifaceted group. For example, a company with a relatively small sewing facility and equally humble laundry falls into this category. So does a locally owned giant that has five sewing factories, a laundry and cutting room in the region. Finally, a subsidiary of a TNC with two factories in the region and a great number of subsidiaries in other regions or countries also falls into this category.

A subdivision of the multi-plant group into ‘simple multi-plant companies’ and corporate companies (see Table 5.2) renders a more detailed understanding of prevalent company structures in La Laguna. Simple multi-plant companies are the most common type in La Laguna. They have various production units, which in most cases are used as a way of physically separating the various stages of the production process. New plants have usually been added over time, as expansion was needed but impossible within the existing production facilities. Most commonly, offices of management and administration are integrated into one of the production facilities. Many of these companies are family businesses. None is embedded in a hierarchical, corporate structure, with headquarters, formal divisions and several management layers. Most simple multi-plant companies are locally owned; the majority are large and very large companies. A large number of the medium-sized companies and a few foreign-owned businesses also fall into this category. The FDI facilities that are part of a simple multi-plant company are US-based contractors that may have one or two production facilities and their headquarters in the US. The prevalence of the simple multi-plant structure in the region appears to be the result of the rapid and unplanned or ‘organic’ growth of garment firms trying to fully exploit the large and growing demand by adding new sewing lines, factories and more personnel. Figures 5.2 and 5.3 illustrate the structure of two very different simple multi-plant garment companies in the region.
Figure 5.2: Roman: a simple multi-plant company in La Laguna

Figure 5.3: Casolco: a simple multi-plant company in La Laguna

Table 5.2: Company structure of garment companies in La Laguna

<table>
<thead>
<tr>
<th>Ownership</th>
<th>Mexican</th>
<th>Foreign</th>
<th>Joint venture</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single plant</td>
<td>39</td>
<td>1</td>
<td>-</td>
<td>40</td>
</tr>
<tr>
<td>Multi plant</td>
<td>21</td>
<td>3</td>
<td>-</td>
<td>24</td>
</tr>
<tr>
<td>Corporate multi-plant</td>
<td>2</td>
<td>6</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>10</td>
<td>1</td>
<td>73</td>
</tr>
</tbody>
</table>

Source: Baseline survey, 1998-1999
Multi-plant company Roman (see Figure 5.2) has concentrated almost all production activities in one large facility beside the ring-road in Torreón. Even though everything could be concentrated in this one facility, this is not done because, as the owner says ‘we already owned the other two properties’.

At the time of the survey, Casolco (see Figure 5.3) still had its headquarters in Gómez Palacio, but was in the process of moving it out of the urban area to Villa Juárez – a small village just outside Cd. Lerdo – where it already had several factories, including the cutting room and finishing facility.

By comparison, the structure of corporate companies is more complex. It commonly incorporates several business or product departments in a strictly defined, hierarchical business structure. Generally, local FDI facilities of brand-name TNCs are part of such a structure, in which they are subordinated to corporate headquarters outside the region. Six such facilities are present in La Laguna sample (see Table 5.2). Besides these foreign-owned subsidiaries of branded US manufacturers, a US-Mexican joint venture and two large locally owned companies can be classified as corporate multi-plant companies.

The two corporate locally owned companies are exceptional in the region. Not insignificantly, they are subsidiaries of locally owned, diversified companies for which apparel production is but one of their many activities. In both cases apparel is a relatively recent diversification outside the main activity of the group. One is the apparel division of a nation-wide supermarket chain, the other is the apparel division of a company that also produces food products and natural gas, and has a transportation division and several other divisions.

Figure 5.4 illustrates the structure of this latter locally owned corporate company, called Lajat, for whom apparel (and later textile production) were completely new activities when its first factory was opened in the late 1980s. After a few years the company gave up its ambitions to be vertically integrated and sold its textile division, but in apparel it had become one of the largest companies in the region by the end of the 1990s.

Many garment companies in the region consist of several production facilities. Disentangling firm-level data to arrive at the factory level provides valuable and more detailed information on the structure of the cluster. To this effect, the location of all production plants that form part of the sample will be briefly examined (see Table 5.3). This will give an indication of the true sphere of influence of garment companies in La Laguna.

The plant-level data confirm the central position of the urban area within the garment cluster: 78% of the garment factories in the region are located in Torreón, Gómez Palacio or Cd. Lerdo. On the other hand, the rural area of La Laguna is clearly a popular site for the establishment of garment factories as well. A total of 31 plants are located in the rural areas. Five of these plants are foreign-owned subsidiaries of US manufacturers; the others are recently established factories owned by companies based in the urban node of La Laguna.

Site selection for factories seems to depend on both the size and the ownership of the company. Plants belonging to smaller companies are generally located in the vicinity of the other plant(s), often in the same city and sometimes even in the same neighbourhood or street. Similarly, several foreign-owned multi-plant companies in La Laguna also selected a location in the region, either urban or rural, for the establishment of various plants. Cd. Lerdo is a case in
point: five of the largest factories located in this city are owned by one very large US-owned company. Wrangler can serve as an example of company strategy in this respect; it has chosen to concentrate the laundry, cutting room and small parts assembly within one industrial park in Torreón. In addition, two of Wrangler’s assembly plants are located at a short distance from each other in the municipio of San Pedro.

The local giants mentioned in the previous section have many production facilities. In addition, they are the only ones to spread their plants over different locations in the urban and rural areas of La Laguna. Several have even invested in factories outside the Laguna, in other parts of Mexico or in the US border region. Some of their factories are located in the rural area surrounding the Laguna region, viz. in the states of Durango and Coahuila or in the neighbouring states, Tamaulipas and Zacatecas. An equal number of plants have been established in locations further away from La Laguna, in San Luis Potosí and even as far away as Michoacan and Oaxaca. The result is a scattering of factories over sometimes quite extensive geographical areas. All the factories in Mexico outside La Laguna included in Table 5.4 are owned by just six large, locally owned garment producers in La Laguna. Not only are they more active in terms of the number of new factories they have established, but they also invest in places far away from their region and their other factories. The number of garment factories outside La Laguna is quite impressive, especially bearing in mind that most of these facilities started operations during the late 1990s. All have been set up within a short time span as a way

Source: Baseline survey, 1998-1999

Figure 5.4: Lajat: a corporate multi-plant company in La Laguna
to avoid the tightening urban labour market by tapping into captive, cheaper rural labour reserves. This behaviour distinguishes the local giants from other more conservative companies in the region and explains why they are locally referred to as ‘leaders’. The apparent low-road component or focus of their labour strategy will be discussed in Chapter 8.

Several of these large Mexican companies as well as a few other, smaller companies own production facilities in the US, most notably in the border city of El Paso. The facilities in El Paso are mostly offices dedicated to buyer service, logistics and customs procedures. Some are warehouses and a few have a cutting room. Through production facilities in El Paso, companies in La Laguna can tap into the remnants of local expertise and industry-specific infrastructure. The facilities elsewhere in the US are not concentrated in a particular city, but are scattered throughout the Northeast. Most are headquarters of the FDI factories in the region; only one is a sales office of a very large Mexican-owned garment company in La Laguna.

5.5 Factory labour force

The tremendous growth of the garment industry and individual garment companies in La Laguna has been paralleled by a possibly even more impressive growth in the garment labour force. As mentioned, in the early 1990s the garment industry in the region is estimated to have employed just over 16,000 people. The years after NAFTA are marked by accelerated job creation in the garment industry so that by the end of the 1990s, garment employment was close to 80,000 people. The vast majority of garment employees are factory workers, mostly sewing operators or costureras, as well as supervisors, bundle boys, cutting room and laundry personnel. No evidence was found of the involvement of homeworkers in export production, nor in the domestic market segment of the industry9.

In the local companies over 90% of employees are shop-floor operators. This ties in with expectations based on the labour-intensive nature of the garment production process as discussed in Chapter 1 and with the national pattern (INEGI, 2000). The remaining percentage can be subdivided into administrative personnel and technicians (8%) and management (2%).

Traditionally, the garment industry in the region employed a very high percentage of women. The reason for this was women’s perceived dexterity and home-experience with sewing, as well as a culture that made it hard for men to sit at a sewing machine without being the laughing stock of their macho peers. Many female garment workers are young, unmarried and have no children, but madres solteras (single mothers) also work in the factories.

Following a pattern noted for the Mexican maquiladora sector at large (van Dooren & Verkoren, 2000; MacLachlan & Aguilar, 1993), by the end of the 1990s the employment pattern...
in the region had changed significantly. Women were still in the majority in many of the local garment factories, but as rapid growth of the industry increased the demand for sewing operators, many local factories started to hire men. The share of male garment operators has risen considerably. By the end of the 1990s, on average 36% of the factory workers are men and in some factories male operators constitute the majority. This is a break from the pattern typically associated with the garment industry and from the status of the Mexican export sector as an employer of women.

However, these data hide considerable stratification by gender at the shop-floor level (see also Bair & Gereffi, 2001). Generally, the better paying jobs in the sewing lines are held by men. The more sophisticated machines are operated by men, and laundries and cutting rooms are also dominated by men. In some cases this is validated by the strenuous nature of the jobs – viz. sewing inseams, handling large volumes of wet jeans – while in others it seems to have become an undisputed fact of factory life10. From the perspective of the factories the expectation that women will leave after a couple of years, when they get married or have children, justifies their reluctance to invest in their training – which is necessary to get a better job11. Gender stratification extends also into higher levels in the employment hierarchy, into the offices of the factories. At the intermediate level of administrative and technical personnel, shares of males and females are roughly equal. However, offices are almost uniformly the domain of women, while technicians are men. Also in management, traditional gender stratifications seem hardly to have changed: 78% of the managers are male. Women commonly head the human resources or sometimes the financial departments, while almost all general managers are men.

A significant shift in the age of factory workers has been reported by many local manufacturers. No accurate information on the ages of employees could be collected from the factories, but observation on the shop floor quickly reveals the young age of many garment workers. Most companies in La Laguna appear to honour the legal minimum age: no children were seen in the factories. However, a high percentage of shop-floor workers are aged between sixteen and eighteen. Local manufacturers estimate the average age of garment employees in the cities to have come down over the past years to an average of just below twenty years. For many of the younger employees, work in the garment factory is their first job. Some consider it a good alternative to schooling and have left middle-school (prepa) to earn money in the garment industry.

In line with general practice in the garment industry, wages in the Laguna region are generally based on the piece-rate system. They consist of a base wage, which is determined by the type of operation. This base rate is commonly supplemented by a certain payment per garment or a productivity bonus. Added to the wages are a number of legally set benefits, including contributions to Mexico’s social security system (IMSS) and a minimum number of official holidays. In La Laguna the base rate paid in most garment factories (i.e. around 200 pesos a week) is somewhat higher than the legal minimum wage. When the piece rates are added, garment workers in the region in 1998 earned on average 409 pesos a week. This average conceals considerable disparities, however: a few companies reported an average wage of just above 200 pesos, while others paid an average of 750 pesos. Wage differences may be large also between operators of the same company, depending on the operation and productivity. During the late 1990s the urban labour market for sewing operators tightened due to the explosive
growth of the industry, and upward pressures on wages were evident. In response to these pressures many companies in the region began to offer additional benefits or services. A company canteen that sells food at subsidised prices, and the provision of free transportation, sports activities, etc. are commonly found in La Laguna, certainly in the larger companies. These types of benefits may differ greatly from one company to another, and are used as a means to compete for labour (see section 8.5.1).

When relating types of companies to intra-company labour patterns in general as discussed above no overall clear patterns emerge. The patterns sketched above apply in general terms to the local industry as a whole. Significant differences between companies may exist, but cannot be generalised for types of companies.

As indicated in Table 5.4, weekly salaries vary with company size. The figures indicate no linear connection between company size and wage level. Somewhat surprisingly, medium- and large-sized companies pay below average wages, lower even than the micro and small companies. The observed wage pattern may be explained by relating it to the provision of fringe benefits. On the whole, many of the smaller companies are unable to provide a wide array of fringe benefits. For example, the provision of transportation and a canteen is not common for these smaller companies, which do not have sufficiently large workforces to justify the required expenses. Within the tight urban labour market, these companies appear to compensate for their minimal fringe benefits by paying relatively high wages. In the medium- and large-sized companies, the balance between fringe benefits and wages is the opposite: the range of benefits offered is extensive, alleviating the wage-increase pressures. On average the very large companies in the region offer the highest wages as well as an extensive package of benefits. However, as indicated by the standard deviation (S.D.) value, considerable differences do exist between these companies.

### 5.6 La Laguna: typical garment cluster or a deviant case?

The previous sections sketched the basic outlines of the Laguna garment cluster. Though La Laguna has been involved in garment production for the domestic market for several decades, its current structure reflects its recent rise as an export cluster. The Laguna cluster is narrowly specialised in the production of blue jeans for export to the US. The average scale of production...
of local factories is large and the cluster is dominated by a few giant companies. Most garment companies are located in the urban area. However, as a way to avoid the tight urban labour market and the upward pressure on wages, garment factories are also being established in the rural areas of the region. On the whole, wages and conditions in the local industry are above those legally required in Mexico. Sweatshops were not encountered in the export segment and informality is limited. Rapid growth in export opportunities has led to a partial crowding out of domestic market production.

Compared to the discussion of the garment industry in Chapter 1, certain elements of the Laguna cluster appear to deviate from general patterns in the industry and well from patterns typically associated with clusters. This prompts a comparison of Laguna with other garment clusters recently discussed in the literature. This section presents a brief overview of a few of such garment clusters. It examines the structure and characteristics of these clusters, including cluster size and firm size, product and market orientation and workforce, so that these can be compared to the characteristics of the Laguna cluster that were described in the previous sections.

A recent World Development Special Issue on industrial clusters in LMICs presents the case of the Ludhiana knitwear cluster in India (Tewari, 1999). Ludhiana has a very long history in knitwear production, and over the course of several decades has developed backward linkages to local yarn production as well as the machinery producing sector. It is the main source for woollen and acrylic knitwear and hosiery for India, but it also has a strong exporting position. For a long time the Soviet Union was the main export market for Ludhiana’s garments. After the collapse of the Soviet economy, the industry in Ludhiana recovered relatively quickly and managed to penetrate the US and European markets. Locally produced garments include scarves, sweaters, slacks, vests and socks. There are companies of all sizes in Ludhiana, but the majority fall into the SME category. Most companies are in local ownership, though immigrants play an active role in the industry.

Cawthorne (1995) recorded the case of another very large garment cluster in India: Tiruppur. The Tiruppur cluster produces a diversified range of cotton knitwear products for markets in India, and increasingly also for Western Europe and the US. Originally made up of very small-scale enterprises, the cluster now includes medium- and large-sized companies and is an important element in the local economy. Furthermore, the cluster maintains backward linkages to local weavers and spinning mills. A dense web of local inter-firm linkages based on tightly organised divisions of labour supports the competitive position of Tiruppur. After a long history as a domestic market cluster, export production is now providing a strong impetus for dynamic growth and upgrading, especially for the larger factories in the cluster. However, the ‘sweating’ of labour (including young children) remains an important pillar of Tiruppur’s success.

Another garment cluster in the World Development issue on clusters is that of Gamarra, in Lima, Peru (Visser, 1999; see also Visser, 1996). In fact, the garment industry in Lima has been studied by Visser (ibid.) and Ypeij (1995). Though each study has its own focus, they concur on the structural characteristics of the local garment industry. With some variation between different parts of the city (Visser, 1996), small-scale clothing firms make up the lion’s share of Lima’s garment industry – so much so that the majority of Lima’s garment companies have fewer than
ten employees. Many firms are home based and rely extensively on family labour. The Gamarra cluster studied by Visser accommodates a very large number of small garment firms. Most of the clothing produced in Lima is destined for the Peruvian market. Local firms are actively engaged in the marketing of their products and often have a booth or small shop where traders and wholesalers can buy the clothing directly. Different types of cheap fashion garments are produced, including shirts, children’s wear and sportswear.

Several other garment producing regions in Latin America are located in Mexico. Peña St.Martin (1994) studied the garment industry in Yucatán, a state in the south-east of Mexico widely known for the production of guayaberas (traditional, embroidered men’s shirts). Guayaberas were still an important local product during the late 1980s when Peña St.Martin carried out her research. But the industry had diversified and was producing casual wear – mostly pants and shirts – for the south-east of Mexico; some local garment companies were also exploring export opportunities. Concentrating on the state capital, Mérida, and its immediate surroundings, Peña St.Martin found that in the context of product diversification and changes in market orientation, the traditional organisation of production based on an extensive system of subcontracting relations persisted. Mérida’s garment industry includes companies of all sizes but consists for the most part of small factories. Local garment production was found to rely extensively on linkages between formal and informal segments of the industry. Peña St.Martin describes the ‘diffuse factory’ system, predominant in the local industry, which allows formal garment factories to maintain flexibility through subcontracting linkages to clandestine factories and sweatshops. This system is so pervasive that Peña St.Martin concurs with the estimate of local experts that in the area there are three clandestine garment workers for every formal factory employee. Furthermore, the tentacles of the diffuse factory system reach directly into local households, through the widespread and institutionalised incorporation of homeworkers in the rural areas into the production process. All homeworkers and most factory garment workers in Mérida are women. Middlemen serve as intermediaries between urban factories and homeworkers; they distribute the materials, collect the garments and pay the homeworkers.

Smith (1988) and Vangstrup (2002) both studied garment clusters in Central Mexico that specialise in the production of knitwear. Smith’s very detailed study deals with a cluster in Aguascalientes that is known nationally for intricate embroidery and other artisanal textile work (deshilados). However, the local garment industry produces a much wider range of garments, mostly outerwear, including jeans and other types of pants, women’s blouses, skirts, dresses, sports caps and even household goods such as bedcovers. The garments made in Aguascalientes are sold on the national market, principally in surrounding states and in Mexico City. Export was found to be virtually negligible. The Aguascalientes cluster consists overwhelmingly of small-scale factories: more than 45% of the local factories had five or fewer employees, while fewer than 7% had more than 100. Similar to Peña St. Martin’s findings in Mérida, Smith’s study points to a direct link between the garment industry and local households in Aguascalientes. Homeworkers are incorporated into the local production system, though apparently in a less extensive and institutionalised manner than they are in Yucatán. Furthermore, small garment producers in this city were mostly family businesses where the most important labour input was provided by family members.
<table>
<thead>
<tr>
<th></th>
<th>Ludhiana</th>
<th>Tiruppur</th>
<th>Gamarra (Lima)</th>
<th>Yucatán</th>
<th>Aguascalientes</th>
<th>La Laguna</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cluster size</strong></td>
<td>Firms: 10,000</td>
<td>Firms: 1,750</td>
<td>Firms: 8,000</td>
<td>Firms (formal): 129</td>
<td>Firms: n/a</td>
<td>Firms: 200-250</td>
</tr>
<tr>
<td></td>
<td>Employment: 200,000</td>
<td>Employment: 43,000</td>
<td>Employment: N/A</td>
<td>Employment: 9,000</td>
<td>Employment: N/A</td>
<td>Employment: 75,000</td>
</tr>
<tr>
<td><strong>Firm size</strong></td>
<td>Diverse (ranging from large firms to homeworkers); mainly SMEs</td>
<td>Diverse, predominantly small</td>
<td>Predominantly small (87% &lt; 15 employees)</td>
<td>Diverse, predominantly SMEs, plus homeworkers</td>
<td>Small</td>
<td>Diverse, though comparatively large; dominated by a few very large companies</td>
</tr>
<tr>
<td><strong>Products</strong></td>
<td>Diversified: acrylic and woollen knitwear, hosiery</td>
<td>Diversified: primarily cotton knitwear</td>
<td>Diversified: cheap fashion goods; shirts, pants</td>
<td>Guayaberas and cheap casual wear (shirts and pants)</td>
<td>Diversified: artisanal textile work; jeans, shirts, dresses, bed linen etc.</td>
<td>Highly specialised in jeans and a few other standardised ‘pants’</td>
</tr>
<tr>
<td><strong>Markets</strong></td>
<td>Domestic and export</td>
<td>Domestic and, increasingly, export</td>
<td>Domestic</td>
<td>Domestic</td>
<td>Domestic</td>
<td>Export</td>
</tr>
<tr>
<td><strong>Labour force</strong></td>
<td>Local and migrant workers</td>
<td>Local; women, men and children</td>
<td>N/A</td>
<td>Predominantly women</td>
<td>90% women</td>
<td>Local; women and men</td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td>Urban</td>
<td>Urban</td>
<td>Urban</td>
<td>Urban and rural</td>
<td>Urban: some rural prod. units</td>
<td>Urban: some rural prod. units</td>
</tr>
</tbody>
</table>
Table 5.5 summarises the basic characteristics of the above-mentioned Indian and Latin American garment clusters as well as those of the Laguna cluster.

The table shows the Laguna cluster to be a deviant case and confirms the idea that Laguna’s distinctive features are indeed distinctive. The other garment clusters consist of a large number of small production units, including in several cases, homeworkers. Most produce a relatively broad range of garments for the domestic market. Clearly, La Laguna is different. More interesting than this observation in itself, are the questions regarding how this may affect intra-cluster (inter-firm) competition and cooperation dynamics (see Chapter 6). Similarly it raises questions on the functioning of the cluster within international value chains and networks (subjects of Chapter 7).

5.7 Summary and conclusion

Though the Laguna region has a history in garment manufacturing, the post-NAFTA boom has been very impressive and has profoundly transformed the local industry. From a humble, locally integrated industry, it became one of the largest export bulwarks in Mexico that produces jeans for the US. Based on the findings in this chapter and in reference to the title of Chapter 4, it is important to emphasise that the recent export orientation has entailed a severing of the link between the jeans produced locally and local cotton production.

Based on the export-induced demand growth, the number of garment factories has more than doubled and garment employment grew even more vigorously in the four years following the passage of NAFTA. The post-NAFTA upsurge is a decisive factor in the current structure and characteristics of the Laguna garment cluster. This chapter has shown that the garment industry in La Laguna is characterised by a very narrow product and market orientation: it overwhelmingly produces jeans – typically classified as basic, commodity garments – for export to the US. Production for the domestic market is largely neglected, as a result of the crowding out by and the subordination to export opportunities. A number of large FDI facilities have been established in the post-NAFTA period, but local-ownership predominates in the local garment industry. The scale of operation of garment firms in the region varies from small to very large, but the average size is large – larger than expected on the basis of the literature. Important in this respect is the presence of a number of very large or giant firms that employ several thousand workers. Business structures are fairly rudimentary: even many of the very large companies in the region can be characterised as simple multi-plant companies that do not have a well-developed corporate structure. Garment production is concentrated in the urban area, but some FDI facilities as well as a number of production units of urban-based firms have been established in the rural area. Though fairly evenly distributed over the states of Coahuila and Durango, recently growth in Coahuila – actively stimulated by the state government – has been more dynamic. Finally, the rapid growth of the industry and the great demand for sewing operators has, despite the incorporation of more men, youngsters and rural-urban commuters, resulted in a tight labour market and rising labour cost. Based on these characteristics and compared to other garment clusters, La Laguna can be seen as a deviant case.

How can the distinguishing features of the Laguna cluster be understood, or indeed explained? What are their implications? To a large extent the differences illustrated in Table 5.5 may be explained by differences between the other clusters and La Laguna with regard to their entry
(point) into the globalisation process. The clusters presented in the table were either still shielded or excluded from globalisation or – in the case of Ludhiana – were able to build on steady endogenous growth, local know-how and extensive experience in the domestic market to participate in global garment markets. By contrast, this chapter has confirmed that the recent passage of NAFTA has played a determinant role in making garment production in the Laguna region a ‘booming business’. In fact, it has done more than that: when the NAFTA liberalisation took effect, the then humble local garment industry was faced with a huge, in fact virtually indefinite demand surge from the US. The disproportionate relation between demand and supply and the business opportunities this represented caused a tremendous growth spurt of the industry in La Laguna, especially because the generally low barriers to entry in garment production were lowered further in La Laguna by the fact that production was limited to the assembly of provided fabric and trim items. Hence, people with little or no previous experience in garment production opened garment factories. It would not be too far-fetched to believe that in this spurt, exogenous demand – rather than endogenous capabilities, know-how and strategies – played a determining role. The homogeneity with regard to products, labour and markets found in this chapter indirectly confirms this idea. Rather than the result of a high degree of unison in business orientations and strategies, it points to the fact that the large demand for blue jeans from US buyers may have taken away any incentives for local entrepreneurs to consider alternative products or markets.

Empirical findings with regard to the structure of the Laguna cluster raise questions concerning both extra-regional and intra-regional linkages and their relative importance for the functioning of the cluster. Does the apparent importance of exogenous forces in the recent shaping of the Laguna cluster mean that in the day-to-day functioning of the cluster and its individual firms, vertical network relations with buyers prevail over horizontal cluster relations?

It has been shown that the industry consists overwhelmingly of local contractors and subcontractors, complemented by a limited number of very large-scale production facilities of US-owned branded manufacturers. This raises questions about the position of an export cluster such as La Laguna vis-à-vis its US buyers. The narrow focus on blue jeans for export to the US underlines this important question of dependency and vulnerability. Therefore, extra-regional buyers, network relations with such buyers and different strategies for management of such relations will be the focus of Chapter 7.

First however, intra-regional linkages need to be examined, as will be done in Chapter 6. The structure of La Laguna, with a few dominant, large firms as outlined in this chapter, has traits of mature clusters in LMICs (see Chapter 2). The question to be answered is whether intra-cluster linkages display a hub-and-spoke pattern. In other words, do large local companies function as a spider in a web of local linkages and as a link to the market and its buyers? The following chapter focuses on the prevalence and strength of local linkages, the influence of local embeddedness of such linkages, and other cluster dynamics in the Laguna garment industry.

Notes
1 Interviews with Sr. José Iza (sr.) and Sr. Roberto Tohmé (sr.) in 1999.
2 Various forms of domestic market production appear to have been effectively displaced by export production. This may have entailed the abolition of the production of garments under own design and brand for the local, regional and national markets because ‘export production is more profitable and easier’ (cf. Rabellotti, 2001 for a similar downgrading process in Brenta, Italy).
This serves as a conservative estimate of the relative share of denim products within the total production volume. For a more accurate estimate, a correction would need to be made for the relative importance of the main product as well as for the relative importance of the sample companies within the industry in the region. This would probably lead to higher estimates: up to 90% of the total garment production volume for La Laguna consists of denim garments.

In fact some companies use the inputs provided by their US clients for their own brand production, since clients often make overgenerous estimates of necessary amounts of trim items as well as fabric.

Preceding the passage of NAFTA, one US garment firm had already established factories in the region. However, the remaining FDI facilities in the region are the result of post-NAFTA investment.

Some of these new local giants, have expanded their businesses exceptionally fast, apparently without doing anything extraordinary at all. All throughout the fieldworks, the researcher was told there was ‘something fishy’ about these companies, that – it was felt – made the other companies look like fools for not growing so fast and effortlessly. Though this talk could be discarded as jealousy and gossip (see also Chapter 6), it is not unlikely money laundering played a role in certain companies (see also Proceso, 2003).

The size classes used here are adapted to fit the research population and are larger than in most other studies. For example, the largest size class in Visser’s (1996) study of the Gamarra cluster was 20-99 employees.

Those plants that are indirectly linked to companies in the region will not be taken into consideration. Production facilities of TNCs that do not maintain linkages to local facilities are not included. Rural cooperatives are also not included.

Homeworkers are not incorporated into the production process. The nature of the dominant product and process almost prohibits the use of homeworkers. Moreover, the quest of most of the cluster’s US buyers for more control over their networks has in many cases led to the formal prohibition of the incorporation of homeworkers. According to sources in the region, the involvement of homeworkers was quite common until the 1960s. Then, the volumes involved were still much smaller and homeworkers mostly did pressing of the pants.

There is considerable sex-related tension in many factories in the region. Not only does an obvious macho atmosphere dominate certain departments of some local garment companies, but the researcher has witnessed several cases of sexual harassment (and allegations thereof) and has heard several complaints about the impact of gender tensions on the working atmosphere. This has caused some companies in the region to take strict measures such as prohibiting ‘flirtatious behaviour’ and holding hands on the factory premises. Others maintain existing gender divisions within the factories.

In an industrial environment plagued by very high turnover rates for the overall labour force (see Chapters 6 and 7), this argument may no longer be very convincing.