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The Regional Regime of Accumulation in Ulsan City, Korea

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Abstract

Korea's industrialization and economic growth have been evaluated in terms of their speed and quantity, but there have also been very severe confrontations between labor and capital, and radical spatial transformations. In this article, the regime involving the regional accumulation of capital in Ulsan City is discussed by focusing on the historical development of production system, wage relations, and the relationship between the labor movement and urban change. This spatially specific historical research shows that Ulsan was transformed by conflicts between capital and labor, and specific production systems. It provides a better understanding of Korean industrialization and urban change. Drawing on bibliographic and field research, it examines the semi-peripheral characteristics of industrial urbanization in Ulsan and their impact on Hyundai workers. In particular, it focuses on the interplay between urbanization, the production system, and workers' struggles to understand how and why the labor movement has been involved with community concerns and national issues as well as conflicts at the workplace. The conclusions suggest that the workers' struggle is an important factor in bringing about significant change to Ulsan City, and argues that urban studies should not miss the role of the proletariat as a collective actor.

Keywords: Korean industrialization, Ulsan, Hyundai, Fordism, urbanization, labor movement

1. Introduction

Ulsan, which is well known as Hyundai City, has been one of the most significant symbols of the ups and downs of Korean economic development. It has also been the center of conflicts between labor and capital in Korea. Even though the power of the labor movement that was born in 1987 has notably weakened since, Ulsan was the first city to reflect the economic depression that occurred immediately after the economic crisis. However, the regional regime of production in Ulsan could maintain its economic status in spite of frequent global economic fluctuations.

Ulsan is the 7th largest city in South Korea with a population of over 1.1 million in 2014¹. In 1990, 75,370 out of 109,283 manufacturing workers in Ulsan City were directly employed by the Hyundai Group (Hyundai Heavy Industry [HHI], 1992, p. 1397). Hyundai companies and Hyundai workers are still concentrated in the eastern and northern part of Ulsan City, the so-called Hyundai Kingdom.

¹ It is located in the southeast of the country, 415 kilometers southeast of Seoul, and just 64 kilometers north of Pusan, which is the second largest city in Korea. From 1962 to 1998 the city's population increased from 85,082 to more than one million.

Ulsan is one of the most productive cities in Korea, forming the heart of the Ulsan Industrial District, which is home to the world's largest automobile assembly plant, operated by Hyundai Motor, the world's largest shipyard, operated by Hyundai Heavy Industries, and the world's largest oil refinery, owned by SK Energy. Its industrial production in 1999 was more than 40.84 billion dollars (53,091 billion won, 12.4% of the total industrial product in Korea) and its exports totalled 15.7 billion dollars, which was 10.9 percent of Korea's total exports that year. In 2009, Ulsan had a local gross product of US \$42 billion, ranked third of all Korean cities, and its gross regional domestic product per capita was US \$38,500, the highest in South Korea. (Ulsan Chamber of Commerce and Industry [UCCI], 2012, p. 60).

Undoubtedly, Ulsan is a workers' city not in terms of their control or power but in terms of their numbers. 55.4 percent of the economically active population in Ulsan could be classified as working class (Kim, S. J., 1993, p. 67). Moreover, Hyundai workers' struggles made the city the Mecca of the Korean labor movement. In sum, the economic vitality, glory and domination of the Hyundai Group, the gloomy urban conditions, and the workers' struggles are all intermingled in Ulsan City, which exhibits the pattern and problems of Korea's industrial development.

In this article, the regional regime of accumulation in Ulsan City will be discussed by focusing on the historical development of the production system, wage relations, and the relationship between the labor movement and urban change. I hope this spatially specific historical research can provide a better understanding of the characteristics of Korea's industrialization. Moreover, the importance of the labor movement in urban politics in newly industrializing countries will be discussed.

2. The Role of the State in the Birth of Hyundai City

While the role of the state in Korea's export-oriented industrialization (EOI) has been widely discussed with respect to the flows of foreign capital, the activities of local capitalists, and the control over the labor force (for example, Halliday, 1980; Hart-Lansberg, 1984; Cho, 1985; Deyo, 1986; Haggard, 1990), much less attention has been paid to the actual labor processes and organization of work that were inevitably produced by this EOI. More importantly, the lack of knowledge about urban issues resulted in abstract and insufficient discussions about social relations, the conditions and roles of the working class in the EOI process, and its impact on actual human lives. Therefore, we need much more concrete and systematic studies of the relationship between EOI and labor processes/wage forms in Korea by focusing on important industrial cities.

Four important state activities in the early period of urbanization in Ulsan should be noted; 1) decision making, 2) the special organizations for Ulsan, 3) government investment in Ulsan, and 4) the establishment of related laws.

1. Decision making

To understand the decision making in the process of designating industrial districts, we have to understand the relationship between the specific purposes and characteristics of the industries and the industrial sites involved. Moreover, it is equally important to understand the sociopolitical impact related to the determination of the industrial site.

In this respect, three factors which strongly influenced the decision making in the case of Ulsan City can be distinguished. First, the natural conditions were appropriate for a large industrial complex. For example, the geological structure, water supply, the bay location, and land availability in Ulsan made this area one of the most promising candidates for an industrial district in the decision that went under the name of a great national task ¹.

2. Special organizations for Ulsan

In 1962, the state organized the Planning Center for Ulsan Development for the construction of the industrial district and the Committee of Ulsan Development for consultation. The cabinet directly ran these two organizations, which implemented the entire process of construction from research and planning to the building of the factories. In 1963, a special department for construction in Ulsan was organized under the Ministry of Construction and these two organizations were liquidated.¹ Eventually, the Ministry of Construction concentrated its efforts on the building of facilities and infrastructure (Lee, K. S., 1981, pp. 70-81).

In sum, the state simultaneously adopted a “corporate center strategy”, which directly responded to the needs of capital, and the role of “political entrepreneur”.

3. Government investment

As is well known, the key instrument of the state’s control of the economy in Korea has been its control over the banks and access to foreign capital (Jones and Sakong, 1980, p.109). The state established its influence over the allocation of domestic credit by controlling commercial and development banks and determining interest rates. Simultaneously, the state intensified its strategy of attracting foreign investment. By collaborating with foreign capital, the state tried to take advantage of the expanding international market.² Given the assumption that multinational activities would disrupt the nationalistic logic of capital accumulation, the state tried to exercise control over the foreign presence by favoring loans over direct investment, since loans did not entail foreign control of local firms (Lim, 1985, p. 93).

In order to construct an industrial base in Ulsan the state continued with the same approach by exclusively encouraging and supporting some selected capitalists to invest in Ulsan by using financial leverage and inducing commercial loans from the US, West Germany, Japan, the UK, France, and Belgium (Lee, K. S., 1981, p. 66). In addition, the state directly invested its own revenue and confiscated properties through the “Special Law for Dealing with Illicit Wealth Accumulation”.³ In the meantime, the state directly owned the Korea Petroleum Public Corporation, the Youngnam Chemical Company, and, later, the Korea Fertilizer Company in Ulsan (Kim, S. J., 1992, p. 366).

4. Establishment of related laws

The State established the Law for the Facilitation of Industrial Base Development, which guaranteed investors exemption from various taxes, and the Compulsory Land Purchase Law, which provided land to industrial capitalists at a much lower price than real value of the designated areas.

In sum, the state functioned not only as a banker and a planner but also as a constructor and land distributor. As Sum points out, the state created a huge playground for foreign capital and industrial capitalists in Korea by taking the role of providing private- public structural support for low-cost exports (Sum, 1998, p. 67).

3. Production System in Ulsan City

To understand the success and crisis of industrialization and exportism in Hyundai City, we need to understand the characteristics of the production system that was formed during the 1907s and late 1990s.

² In inducing foreign capital, the state gave priority to indirect over direct investment, guaranteeing the repayment of every kind of foreign loan.

³ More than 60 percent (106 million dollars) of the total amount of investment during the period of the First 5-Year Economic Plan (1962-1966) was foreign capital.

There is a heavy concentration of heavy and chemical industries in Ulsan City. This structure originated in the state's EOI policy, and was later accelerated and expanded by the Heavy and Chemical Industry Plan (HCIP) during the late 1970s (Haggard, 1987, p. 16)⁴.

As Jessop and others suggest, the notion of Fordism includes not only the organization of the labor process but also mass trade unionism, centralized wage bargaining, extended working class consumption, and welfarist and Keynesian state policies (Jessop, 1994, Elger and Smith, 1994, p. 11). In this respect, the state and the Hyundai Group built a kind of peripheral Fordist city in Ulsan with mass production along the lines of Storper's general argument (Storper, 1990, p. 423):

The industrialization strategies of many Third World countries from the 1950s through the late 1970s were essentially geared towards transferring one technological-institutional model, that of Fordist mass production, to the larger and richer Third World countries.

Fordism is based not only on mass production but also on mass consumption. In addition, peripheral Fordism exists in the world's Fordist economy. According to Lipietz (Lipietz, 1986, p.32):

It is an authentic Fordism, based on the coupling of intensive accumulation and the growth of markets. But it remains peripheral in the sense that in the global circuits of productive sectors, qualified employment positions (above all in engineering) remain largely external to these countries. Further, its markets correspond to a specific combination of local middle- class consumption, along with increasing workers' consumption of domestic durables, and cheap exports toward the center.

Implanting Fordism in a smaller and relatively poor country like Korea could not be easily achieved even though exports started the engine of peripheral Fordism in the early 1970s. However, since 1973, the rapid growth of the internal market in major cities, especially in Seoul and Pusan, has brought a much more similar form of Fordism to Korea, as Lipietz argues (Lipietz, 1986, p. 33):

After 1973, industrial growth was refocused on the domestic market: export shares fell, then stabilized, and an active policy of import-substitution caused imports to fall from 27% to 20% of the domestic market.

This process could be understood as a complex exportism that is characterized by a specific articulation of EOI-ISI projects. However, in Ulsan, only Fordist mass production has matured through continuous exports and an expanding domestic market, with primitive 'bloody Taylorist' modes of labor control.⁵

In this section, the production system in Ulsan is discussed in terms of the organization of firms, international relationships, and the labor process. I will focus on HMC and HHI because they dominate the production system in Ulsan. The characteristics and structure of the Hyundai Group will be presented first.

A. The Hyundai Group's Control over Firms

The production system of individual Hyundai companies cannot be fully understood without considering the structure and system of the Hyundai Group. While the Hyundai Group shares some common characteristics with other Korean *Chaebols*, it has a unique production system, development strategies, labor control, and leadership.

First, the Hyundai Group, as one of the three largest *Chaebols* in Korea, has typical family ownership throughout 38 Hyundai companies (in 1990) with interlocking directorships and extensive cross holdings.

⁴ The industrial structure inevitably created a quite homogeneous working class community in this part of the Ulsan area.

⁵ For example, HMC sold about a million automobiles in 1993, including domestic sales of 617 thousand automobiles (Joong-Ang Daily, 1994. 1. 5.). However, Ulsan remained a factory city and did not grow into a consumption city until the early 1990s.

Secondly, unlike Japanese *Keiretsu*, ownership and management are not separated in Korean *Chaebols*. Actually, ownership means absolute control over all the firms in the Hyundai Group.

Third, heavily leaning on debt—the average debt ratio is 398.2—like other *Chaebols* (1991), the Hyundai Group uniquely concentrated its investment and efforts on strategic industries for certain periods (Cho, H. J., 1992, p. 106).⁶ Each Hyundai company could be seriously influenced by the group's strategic decisions. Under the circumstances, part of the profits gained in a Hyundai company could not be properly shared with the workers in that firm even if the management in the firm is willing to do so.

Fourth, the Hyundai Group, headquartered in Seoul, always made the final decision on collective bargaining and labor disputes in every Hyundai company, and, furthermore, the Central Office of Planning & Coordination and the group meeting of the presidents of Hyundai companies carried out the orders of the founder and chairman to each firm (FHGTU, 1993).

B. The Production System of HMC

HMC was the largest company in the Hyundai Group in terms of total assets and net sales in the early 1990s although the ratio of equity capital was much lower than HHI. HHI was much smaller than HMC, but it was financially healthier, with less debt. What were the characteristics of HMC's production system and how was this system related to the urban situation and the labor movement in Ulsan?

A production system is a collection of operating units linked by technology and organization to the manufacture of final products (Hill, 1989, pp. 462-463). This broad definition may include many aspects of the industrial, social, and international relationships concerned with a firm or an industry.

(1) Production system

The subcontracting system of HMC had was significantly different from that of Japanese automobile industry. The most visible difference could be found in the structure of the subcontracting system. Japan's automobile industry had very efficient and sophisticated multi-layered production systems integrating sub-contractors into a hierarchy of specialization (Sheard, 1983, pp. 50-51). Fujita and Hill summarize Toyota's production system as follows (Fujita and Hill, 1993, pp. 11-12):

...the first layer consists of subcontractors engaged in direct transactions with Toyota Motor Corporation, including manufacturers of machinery... subassemblies... and major body parts... First layer firms are parents to second layer firms;...second layer subcontracting firms are parents to third layer firms and so on down the chain. Parent firms at each level are responsible for checking the quality and coordinating the inflow of parts, materials and services from the next lower level in a production system...

In this manner, hierarchical specialization and sophisticated divisions of labor were achieved in Toyota's production system. As a result, the number of sub-contractors engaged in direct transactions with Toyota Motor Corporation was just 168 while the total number of firms in the production system is more than 48,000 (Hill, 1993, p. 11). HMC's production system did not have systematic divisions of labor or a hierarchy of specialization.⁷ The data for firms at the lower levels

⁶ For example, profits gained by HEC during the 1960s and early 1970s were invested in developing HMC and HHI in the 1970s. Similarly, funds extracted from HMC and HHI were poured into Hyundai Electronics Industries Co. and Hyundai Oil Refinery Co. in the 1980s.

⁷ Besides its 8 subsidiaries, HMC engaged in direct transactions with 466 subcontractors and internalized 47.7 percent of the

of the production system are not available. HMC increased the number of its direct sub-contractors per component from 1.3 in 1985 to 2.3 in 1992 to avoid instability in parts supply due to labor disputes in the sub-contracting firms (Industrial Bank of Korea, 1993, p. 414).

The actual relationship between HMC and its sub-contractors was much more unequal than in the Japanese production system. Undoubtedly, the Japanese subcontracting system is tightly controlled by parent firms as is the case with HMC⁸. In contrast, most of the conditions and terms in the contract are totally dominated by parent firms in Korea's automobile production systems, and this includes HMC. H.J. Cho presents some examples; 1) 71.6 percent of sub-contracts were shorter than three years; 2) payments for parts were usually (81.5 %) made in the form of drafts which could be cashed 60 days after the date received, and prices were basically decided by the parent firms (Cho, H. J., 1992, p. 209). Workers in subcontracting firms suffered as one sub-contractor said, "When the parent firm asks to lower the price, I have to obey them so as not to lose the contract. Then, once again, I have to squeeze towels that have been already squeezed" (Lee, J. W., 1993, p. 554).

In sum, parts suppliers in Korea's automobile industry remained an unsystematically and subordinately integrated part of the mass production system. HMC's production system was much more similar to the US system up to the 1980s in terms of the strong internalization of the production process, the direct transactions with many suppliers, and the fewer layers in the system (Hill, 1989, p. 466). Under the circumstances, the Japanese Just-In-Time production system could hardly be adopted by HMC.

In spatial terms, HMC had a much more dispersed production system than Japan. According to Hill, Toyota concentrated its headquarters, production facilities, principal suppliers and sub-contractors in Toyota City and the surrounding Aichi prefecture in order to maintain a finely tuned regional production system (Hill, 1993, p. 11). HMC certainly concentrated its production plants in Ulsan City. The plant complex of HMC, as a single unity, was the world's largest, with approximately 1.72 million square meters of floor space on a site measuring 4.43 million square meters (HMC, 1993, p.13). The complex included five assembly lines with an annual production capacity of 1.15 million units.

However, HMC is headquartered in Seoul in the Hyundai Group Headquarters. Moreover, only 101 firms out of 466 major subcontractors were located in the Hyomoon Complex in Ulsan. Even Kefico Corporation, one of HMC's major subsidiaries, which was the sole supplier of fuel injectors for HMC, was located in the Seoul Metropolitan Area (Kyoungki Province). Interestingly enough, the major technology center, Mabookri Advanced Engineering & Research Institute (MAERI) was also located in Kyoungki Province near Seoul.⁹ Moreover, HMC finally completed the Namyang Technology and Research Center which is one of the world's largest technology centers, with thirty fine and vast driving courses for testing new cars, in Kyoungki Province, near Seoul, on October 23, 1996 (Sunday Seoul, October 29, 1996). HMC has invested about 440 million dollars in this project.

In sum, the production system, as a whole, was not as spatially concentrated as Japan's production system.¹⁰ The functional primacy of Seoul in Korea strongly influenced the spatial divisions. Every important decision was and still is made in Seoul and the best urban facilities and

value of the auto production process in contrast to 30 percent for Toyota (Industrial Bank of Korea, 1993, p. 413).

⁸ However, as Sheard describes, the relationship between a parent firm and its sub-contractor was usually stable, had paternalistic overtones, and included necessary support (Sheard, 1983, p. 52).

⁹ The other technology center, Technology Research Institute (TRI), was located in Ulsan, but MAERI was the core domestic brain center of HMC since it produced HMC's own engine model, Alpha, and automatic transmissions with the finest, state-of-the-art equipment in 1991. MAERI employed 14 people with Ph. Ds and 171 people with masters while TRI employed only one person with a Ph. D. and 76 people with masters in Ulsan (HMC, 1992, p. 845).

¹⁰ For example, the Seoul and Kyungki areas were 400 kilometers from Ulsan. Rather, HMC established spatial divisions between key conception and execution activities and between HMC and its suppliers.

consumption goods are concentrated in Seoul.

HMC's system of development and planning accelerated the dispersal of HMC's production system. In December 1993, HMC started the construction of a second plant in Wanjoon Kun, North Cholla Province in the southwestern part of the Korean peninsula (HMC, 1993, p.6).¹¹ The existing line at Ulsan plant for large-sized commercial vehicles was moved out to this plant. Furthermore, a third plant was located at the Injoo Industrial Complex in Asan Kun, South Choongchung Province in the mid-western part of the Korean peninsula. This produced more than 300,000 units of medium-sized passenger cars for export annually.

In sum, we can regard HMC's production system as a form of 'flexible Taylorism', as Sum argues (Sum, 1998, p. 63) :

The Taylorized fragmentation of tasks does not take the form of a rigid assembly line within one plant. Instead, there is a fragmented division of labor across many product sites, often small or miniscule in size.

(2) International relationships

The two most important nations for HMC have been the USA as a market and Japan as a technological source. The USA has been the major importer of HMC cars since the Excel was introduced to the market in 1986. Undoubtedly, HMC's export strategy was focused on the North American market. The European market, until then, was too restrictive for HMC.

In spite of impressive growth, it remained very doubtful as to whether the aggressive expansion strategy of HMC could proceed much further. However, Hyundai showed that it would not give up this strategy by acquiring Kia Automobile Company which filed for bankruptcy with debt of more than 6 billion dollars. The rapidly changing world economic order under the World Trade Organization system, a persistent technological gap, financial weakness, and profits leaking to Japan, together with growing domestic tensions between capital and labor, and, more importantly, the economic crisis of the time made the HMC's future look quite bleak.

(3) The labor process in HMC

Even with the appropriate introduction of technologies and aggressive investment to achieve economies of scale, the growth of HMC would not have been possible if there had not been cheap and diligent labor. The wage per hour in Korea's automobile industry in 1987 was 14 percent of the Japanese wage and 12.5 percent of that in the USA. Accordingly, HMC's competitive power in the world market was still rooted in the low wage.

In order to reduce labor costs and workers' resistance, HMC accelerated the automation of factories and used many more robots, numerical control (NC) machine tools, and transfer machines. For example, the rate of automation in the number 3 factory for the Elantra, planned in 1988 and completed in 1990, was more than 90 percent (HMC, 1992, p. 685). Automation was high in the body shop, where 267 robots worked (HMC, 1992, p. 687)¹².

Second, HMC tried to create much more sophisticated standards and grades in the organization of its work, job ladders and a computerized labor management system. In particular, HMC tried to build a grade system based on an evaluation of each worker's ability (HMC, 1992, pp. 709-710) . Actually, this grade system was used as an important measure for the lay-offs in 1998.

¹¹ As planned, the plant was completed by 1995 with a production capacity of 70,000 units of large-sized commercial vehicles such as buses, trucks, and special vehicles.

¹² Park, J. S. observed that the increase in NC machine tools and other computer aided machines in HMC had reduced the need for skilled work and workers had been getting more involved with simple and repetitious work (Park, J. S, 1992, 112-129).

Third, in addition to strengthening technical control, HMC tested various programs to introduce a Japanese-style flexible manufacturing system for the future, such as quality circles, job rotation, and retraining programs. Therefore, HMC's labor process could be categorized as a type of 'flexible Taylorism' (Sum, 1998, pp. 62-63).

C. HHI's Production System

HHI's business achievements were remarkable (Lee, K. S., 1994, pp. 498-512); Fortune magazine ranked HHI the No. 1 transportation equipment producer in the world in 1992 and 1993. HHI's net sales in 1993 were 6.5 billion dollars, 3.2 billion dollars more than the No.2, a Norwegian shipbuilder. Building 30 ships of 1.5 million G/T in 1991, HHI established a world record. HHI also ranked No. 1 in profit making among all private firms in Korea in 1991 and 1992.

That kind of development within 20 years looked quite amazing. Amsden (Amsden, 1989, p. 269) writes:

What was unique about HHI, in comparison with its Japanese counterparts, was its rise to power on the basis of a complex, "greenfield" yard without any prior experience in shipbuilding.

HHI's success, in an economic sense, is a fine example of the success of Korean exportism.

(1) Production system

HHI's sub-contracting system is quite similar to HMC's; it did not have systematic divisions of labor or a well-organized hierarchy of specialization. However, two unique aspects of HHI's production system should be noted. First, HHI developed a strong production network of subsidiaries in the Mipo area in Ulsan under the umbrella of the Hyundai Group. HHI, under the direction of Hyundai Group Headquarters, formed its production line in the Mipo area with related Hyundai companies such as Hyundai Pipe Company, Hyundai Electrical Engineering Company (merged into HHI at the end of 1993), Hyundai Robot Industrial Company, Hyundai Construction Equipment Industrial Company, Hyundai Mipo Dockyard Company, Hyundai Wood Industries, and Hyundai Steel Tower Industrial Company.¹³ Second, HHI's subcontractors were densely located in areas adjacent to Ulsan. Out of the 768 subcontractors, 606 firms were located in Ulsan, Pusan, or the Kyungsang Area in 1992.

Besides the state's investment in the Mipo area, two industrial factors contributed to the spatial agglomeration of the HHH production system. First, the shipbuilding industry requires many industrial products, from sophisticated and huge engines to kitchen furniture, and few companies could supply just the right components to HHI due to the low level of industrial development in Korea. Inevitably, Hyundai had to concentrate its own industrial power in this area. A huge dockyard and everything necessary to run it had to go there. The state and Hyundai succeeded in making the business run in the hinterland (Scott, 1988, p. 59).

Secondly, the fact that shipbuilding required relatively big and heavy components contributed to HHI's spatially concentrated sub-contracting system. For example, sub-contractors in Ulsan and adjacent areas were the main suppliers of metal structures, frames, ladder platforms, and so on, while some of the sub-contractors in Seoul and the Kyungki area produced wires, small furniture, valves, and so on (HHI, 1992, pp. 1407-1413).¹⁴

¹³ All these companies were founded by the Hyundai Group to supply essential components and materials for shipbuilding to HHI.

¹⁴ Accordingly, HHI had a much more spatially concentrated production system than HMC. Besides sub-contractors and subsidiaries, HHI concentrated its headquarters, research institutes (Hyundai Maritime Research Institute and Welding Research Institute) and many other facilities for the reproduction of the workforce, such as the Diamond Hotel, Heisung Hospital, Hyundai Department Store, the main stadium, housing, Hyundai schools from kindergarten to high school, and recreation centers, in the Mipo area.

Two additional factors contributed to the spatial concentration of HHI's production system. First, the labor process of the system, which will be discussed in detail later, was heavily dependent on simple control, in contrast to HMC, which had been developing technical control based on the Taylorist system and automation. Simple control required close and immediate control and supervision over workers, so HHI's management system, including its headquarters, was concentrated around the dockyard, even though the important decisions were made in the Hyundai Group Headquarters in Seoul.

Second, HHI's workers' struggles for higher wages and better living conditions had greatly changed the urban scene in the Mipo area. Residential areas and commercial facilities rapidly expanded around the factories. This issue will be discussed in more detail later, but here I want to emphasize that HHI's labor movement contributed to the concentration, rather than the dispersal, of the production system.

All in all, the spatial structure and prospects of HHI's production system were quite different from that of HMC. The contrast between HHI and HMC suggests that the historical process of development, the industrial characteristics, the ways of controlling the labor force, and workers' resistance are all important factors that shape the production system of a certain firm or industry and urban change. However, HHI's status in the international market should not be ignored either.

(2) International Relationships

Even though there were difficulties in the early years of the industry, and sporadic fluctuations (see Amsden, 1989, pp. 269-274), HHI, with other Korean shipbuilders, had occupied second place in the world's shipbuilding industry by the mid-1980s. We can think of four major reasons for the rapid growth of the shipbuilding industry in Korea (Lim, Y. I., 1994, pp. 58-60).

First, in the 1970s and early 1980s, world shipbuilders suffered from a continuous decline in ship prices caused by two oil shocks and a global recession. European shipbuilders could no longer compete on price due to their old facilities and high labor costs. This gave Third World shipbuilders a chance to jump into the market for large ships. While European shipbuilders started to concentrate their efforts on producing special ships for chemicals and liquefied natural gas that required high technology, shipbuilders in Brazil, Poland, and Korea started to produce large ships, such as very large crude carriers (VLCC), bulk carriers, and container ships. Second, low labor costs and huge new facilities put HHI in a strong position in terms of price. For example, the share of labor costs in total costs was just ten percent in Korea while it was thirty to thirty-six percent in Europe and Japan (Lim, 1994, p. 59).¹⁵ The strategy of economies of scale became the most important characteristic of Korean shipbuilding.

Third, Hyundai's absolute control over its workers, which was enabled by the state's repressive labor policy, could reduce delivery times remarkably, compared to Europe or Japan. For example, HHI constructed a 260-thousand-ton crude carrier in just 15 months, 12 months faster than English shipbuilders (HHI, 1992, p. 364). Labor was not only cheap but diligent and docile enough to construct the world's largest shipyard and two big vessels at the same time at the fastest rate in the world in the early 1970s.

Fourth, there was the state's assistance to the shipbuilding industry (see Amsden, 1989, pp. 274-276). Besides direct and indirect financial support and subsidies, the Korean government maintained an export-oriented policy and a financial support system that were both hospitable to foreign buyers. In contrast, Brazil focused on import-substitution and reduced financial support for

¹⁵ In addition, as mentioned earlier, aggressive investment in the dockyards led to the production of ships of up to one million DWT and helped HHI take more orders at lower prices.

foreign buyers.

In sum, cheap and hard-working labor, HHI's diversified structure (Amsden, 1989, p.290), aggressive investments and policies aimed at continuous exports, economies of scale to cut costs, and fast delivery, all worked fairly well for the development of shipbuilding in Korea. Consequently, in the 1990s, Korea and Japan were in a fierce battle for the top builder of big ships such as tankers, container ships, and bulk carriers.

Under the circumstances, the survival of Korea's shipbuilders heavily depended on their stable control of workers to maintain 'comparatively' low wages. Therefore, conflicts between capital and labor in the shipbuilding industry persisted. This did not mean that Korean shipbuilders were simply repressing workers. They were making technological progress, importing technologies and foreign technicians (Samsung), and trying to diversify their business (Hyundai). HHI, in particular, had a long term development strategy to reduce its dependence on shipbuilding by diversifying and strengthening its other business areas. HHI expanded its activities in the manufacture of power generation, construction and port-equipment, diesel engines and machinery, and industrial plant (Lloyd's List Australian Weekly, October 2, 1995). In this way, HHI hoped to limit its exposure to the cyclical, international shipbuilding market.¹⁶

(3) The Labor Process in HHI

It is useful to contrast the labor process in shipbuilding with that in the automobile industry. In contrast to automobiles, standardization and automation in shipbuilding are more difficult because the shipbuilding industry is usually based on individual and unique orders. Each ship requires unique processes and technical changes. Therefore, work is usually organized in the form of job-shops for each stage of production, and the labor process is often disconnected. The distinctive characteristics in the shipbuilding labor process include the following.

First, shipbuilding requires hundreds of skills and occupations for a ship's design, steel works, block assembly, launching, carpentry, decoration, and so on. Therefore, more workers are organized by specific skills in shipbuilding than in the automobile industry.

Second, even though shipbuilders invest a lot of money in research and development, standardization and automation cannot easily be achieved because each order asks for different designs, engines, decorations, delivery schedules, and so on. As a result, management's technical control over the whole labor process is circumscribed while workers can enjoy a relatively high degree of autonomy.

Third, shipbuilding is a huge undertaking. It requires dangerous work in high places, in closed spaces, and on the hulls. Korean shipbuilding workers had to work very hard in bad working environments with frequent industrial accidents. Let's take a look at the labor process in HHI in more detail. HHI required a much higher level of skills than HMC. Moreover, HHI workers usually worked in teams. To fulfill diversified and unique work on order, the basic unit of the work organization in HHI was the Ban, in which about 15 workers are controlled by a foreman. Because HHI's workers were carrying out their tasks as a team, they had a strong relationship with each other. They worked together, discussed differences between drawings and the actual work, drank together and even lived together in the same apartment complex. In contrast to HMC's workers, who had few chances to communicate with each other on the assembly lines, communication among members of the 'Ban' is an essential part of HHI's labor process.

All in all, working as a team everyday contributed to group solidarity, which is very important

¹⁶ Moreover, by the mid-1990s, HHI seemed to engage in effective strategies for social control over HHI workers in spite of severe confrontations with workers in the early 1990s. Relatively higher wages and better living conditions, including the ownership of apartments, seemed to significantly contribute to the stabilization of labor relations in HHI.

for an organized labor movement (Park, J. S., 1992, p. 137-138).

However, work schedules, the amount of work, and decisions on personnel were totally in the hands of the chiefs of the departments and divisions (HHITU-b, 1994, p.133). HHI's control over its workers was much more dependent on a primitive Taylorist labor process than HMC's. For example, when HHI workers went on strike for the first time in 1987, their demands included the freedom to choose their own hairstyle, a paid vacation for three or four days a year, freedom from physical exercise at lunch time, and better lunches (leaflet issued by the Committee for the Reorganization of the HHI Trade Union, "Newsletter for All HHI Workers, August 1, 1987).

As Carter points out, the workers' struggle was concerned not only with wages and salary levels but also with the content and definition of jobs and control (Carter, 1995, p.66). In this respect, the militancy of HHI's workers was rooted in their recognition of both their human and economic rights.

Overall, the production system in Ulsan showed the typical characteristics of Fordist production in the export-oriented semi-periphery (Shannon, 1989, p.103).

Even when manufacturers export from the semi-periphery to the core, they remain of the sort that is always defined by the semi-periphery's role in the world's division of labor. By relying on the now easily transferred technology of traditional mass production using semi-skilled labor, the semi-periphery can use the advantage of low wages to capture a segment of the world market.

This does not mean that there was neither the effort nor the hope to climb the ladder to the core in Korea. However, to manage the driving forces in the world economy, such as the rise of new technologies, internationalization, and the paradigm shift from Fordism to Post-Fordism (Jessop, 1994, p. 260), it was necessary for Korea to achieve or obtain technological development, the endogenous mobilization and sustenance of resources, including labor, and appropriate local social regulations, including the development of communities of trust, which required huge investments of social time and resources with high risks of failure (Storper, 1990, p.436-439). Unfortunately, the economic crisis worsened and the need to maintain low prices and burdensome investments in research and development increased in order that they could stay in a game that existed in an economic environment with extremely unstable financial systems. As discussed, HHI and HMC's productions systems shared many common characteristics as members of the Hyundai Group, while they had quite different spatial and organizational characteristics, which were derived from differences in their labor processes, global market conditions, and sub-contracting. Accordingly, workers in HHI and HMC had similarities and differences in their experiences and concerns at their workplaces. HHI's workers, in particular, were under much more direct and repressive control than HMC's workers. Therefore, it was no accident that HHI workers played the leading role in the early stages of the labor movement.¹⁷ This only means that HMC, as an automobile maker, could obscure the relations of exploitation between capital and labor by adopting a higher level of scientific management and technical control until the economic crisis gave labor some leverage, power and flexibility in the late 1990s (Burawoy, 1985). By contrast, the militant union of the early 1990s brought relatively higher rewards and various corporate cultural/social power to HHI workers and their families. Therefore, solidarity between HHI and HMC workers did not form automatically. This explains why HMC workers had to fight alone against the dismissals in 1998. In the next section, urban change and the labor movement in Ulsan will be discussed.

¹⁷ This does not mean, however, that HMC workers were in a much better situation.

4. The Labor Movement and Urban Change since 1987

A. Conditions of Hyundai Workers

First, the housing condition for manufacturing workers including Hyundai workers in Korea have generally been poor. Second, Hyundai workers had improved their housing conditions remarkably by the early 1990s. Therefore, there must have been significant changes in the built environment in the Ulsan area.

Having ownership of a dwelling means escape from the devil of ever-increasing rents and housing prices. However, the burden of a large mortgage can drive a person to their death. HHI's workers who have their own dwelling borrowed from banks 28.6 percent of the money they needed to purchase a 2 or 3 bedroom apartment while also getting 23.8 percent as a company loan (HHITU-a, 1994, p. 352). They are repaying 150 dollars on average per month for these loans. Workers who do not have their own housing, in addition to paying rent, were saving more than 250 dollars a month to get the money to buy a home in the future. (HHITU-a, 1994, p.353). HMC's workers have an average debt of about 10,000 dollars, mostly for housing (HMCTU, 1993-a, p. 20).¹⁸ To sum up, housing conditions for Hyundai workers have been getting better compared to manufacturing workers in other places.

According to Lipietz, workers' purchasing power is a crucial part of the markets in peripheral Fordist societies (Lipietz, 1986, p. 32):

Further, its markets correspond to a specific combination of local middle class consumption, along with increasing workers' consumption of domestic durables, and cheap exports toward the center.

In this respect, Korean society has been following the path to a mature peripheral Fordism. As seen in Table 1, the consumption of durables trebled between 1973 and 1991. The increase in the consumption of private services has been even more rapid. Consumption in Korea has grown following the growth of production, especially after 1985. For example, domestic demand for automobiles in Korea increased by 27.1 percent annually during the period 1988-1992 (Industrial Bank of Korea, 1993, pp. 384-386).

61 percent of the automobiles (833,000 units) produced in 1992 were sold in the domestic market. Korean society seemed finally to have entered the age of consumption with 'one car per family'. As shown in Table 2, Hyundai workers possessed almost every important durable. That 76 percent of HHI workers had their own cars at that time is particularly remarkable. Mr. Koo, J. H., Chief of Policy Making at the HHI Trade Union (HHITU), told me that HHI's workers bought Hyundai automobiles in the early 1990s when HMC provided a 5 percent discount and a generous monthly payment to Hyundai workers.¹⁹

Moreover, Table 3 on the MME figures shows that HHITU's estimate for 'recreation and culture', and 'education' was quite high. This figure matches the rapid increase in expenses for private services shown in Table 1. Hyundai workers who had two or more schoolgoers usually spent more than 200 dollars a month for private education, which is not extraordinary in a society that has 'education fever'. All in all, Hyundai workers have gradually invited the world of consumption into their lives since 1987. As a result, they have been contributing to the expansion of the commercial sector in the Ulsan economy. On the one hand, this was a good sign of improving living conditions for workers and an expansion of markets for capitalists. On the other hand, this might have led

¹⁸ Considering their level of income, discussed earlier, these financial burdens are quite heavy for Hyundai workers.

¹⁹ He added cynically that what workers earned was immediately sucked into monthly payments on cars and houses or spent in the Hyundai Department Store.

workers to have an illusory middle-class consciousness and to feel more contented with their firms.

5. Labor Movement (1987-early 1990s)

The Hyundai workers' labor movement developed significantly in spite of repression from the state and the Hyundai Group, internal conflicts, and a lack of resources. At the same time, company unionism, economism, and sectionalism grew during the struggle. In the developmental stage of the labor movement, some important characteristics can be identified.

First of all, the Hyundai workers' labor movement quite successfully developed its organizational structure and became the spearhead of the labor movement in Korea. The history of the Hyundai workers' labor movement shows that struggles which started at workplaces spread to workers' communities, to Ulsan City, and to the nation. As McAdam et. al. point out, for a movement to survive, movement leaders must be able to create a more enduring organizational structure to sustain collective action (McAdam et. al., 1996, p. 13). Hyundai workers organized the FHGTU (Federation of Hyundai Group Trade Unions) to fight against the largest conglomerates in Korea. In spite of enormous pressure from the state and the Hyundai Group, workers' struggles could protect their organizations. Moreover, FHGTU formed the 'Korean Council of Trade Unions' (KCTU, Chonnodae) with other labor movement organizations and large company trade unions such as the Daewoo Group Trade Union Council and the Kia Group Trade Union Federation in June 1993 (FHGTU, 1994, p.32). Even though these organizations were illegal according to the Trade Union Act and the Labor Dispute Adjustment Act, the state could not abolish them. Finally, KCTU transformed itself into the Korean Confederation of Trade Unions (KCTU again, Minjunochong) as a central organization of democratic trade unions in Korea. All in all, 170,000 Hyundai workers in FHGTU constituted the main force in these national organizations.

Second, the spatial arrangement and characteristics of the production system were strong factors in the development of the labor movement in Ulsan. For example, Hyundai's giant production system in Ulsan often came to serve as a network for the labor movement. Production facilities, disciplines and work skills, and the workers' experience of Hyundai's indiscriminate dominance over all Hyundai companies in Ulsan were often transformed into resources for the movement as Massey mentions occurs in a similar way in advanced capitalist countries (Massey, 1995, p. 341):

It is important to be alert to the endless flexibility (in the sense of specificity) of capital, and to be aware that it is always contestable. Spatial organization is both a stake and a weapon in the various power struggles in society, not least in the geography of industry.

Moreover, the proximity to their homes and the relationship between the workplace and their residential communities were important factors in the development of the movement, as Katznelson argues (Katznelson, 1992, p. 129):

Class relations are lived and experienced not only at work, but also off work in residential communities. If we are interested in how social classes in cities are formed as groups sharing dispositions, then we must attend to how they construct maps of their social terrain in both domains, and to how they do, or do not, link them.

Therefore, the labor movement in Ulsan was not only a workers' affair but also a community affair, as Dawley observed in the case of Lynn (Dawley, 1976, p. 228). Under the circumstances, countermeasures by the state and the Hyundai Group could not be confined to modifications of the

labor process or the organization of work. The Hyundai Group recognized that it needed strategies for cultural and spatial hegemony over the whole area.

However, spatial arrangements and the Hyundai production system also had a negative impact on the development of the local labor movement in Ulsan. Workers in the chemical industries and sub-contracting firms hardly participated in Hyundai workers' struggles. When I asked several chairmen of these firms about this problem, most of them answered that they did not have to fight because they and their employers settled their issues in line with the results of the negotiations carried out by the Hyundai workers and the Hyundai Group. In other words, they were talking about the joy of 'free riding'. To them, the labor movement usually meant Hyundai affairs in the Hyundai kingdom.

Moreover, one of them (Chairman of Hyosung Metal Company) seriously criticized Hyundai workers saying that they do not care about the struggles in small and middle-sized firms. He said, "When we were brutally suppressed by the police, few Hyundai workers helped us." The concentration of Hyundai workers in the eastern part of Ulsan under the regime of the Hyundai Group not only significantly encouraged class consciousness, but it also tended to isolate Hyundai workers and prevent them from enjoying local support and cooperation (Gordon, 1978). Therefore, building local solidarity and overcoming 'group unionism' is required for the further development of the labor movement in Ulsan.

Fourth, countermeasures by the state and the Hyundai Group developed alongside the rapid development of the labor movement. As is well known, in the process of export-oriented industrialization, the state took almost complete charge of the control of labor. However, since 1987, the state had to give up many repressive controls, and the strict application of labor laws and the control of labor were largely transferred to the capitalist class. As mentioned earlier, even though FHGTU and many other national labor organizations were illegal according to the labor laws, the state had to allow them tacitly.²⁰ However, in Kim Youngsam's administration from 1993, overtly repressive controls over the labor movement significantly decreased. Instead, the administration is tried to create an unfavorable image of and disinformation about the labor movement by disseminating the idea that the international competitiveness of the Korean economy could be seriously damaged by the labor movement. This strategy continued in Kim Daejung's administration with its strong emphasis on an open neoliberal economy and workfare policies.

Without giving up the use of public power for the suppression of workers' struggles, the Hyundai Group eventually recognized that they needed new strategies to control their workers effectively. Accordingly, Hyundai adopted more sophisticated automation systems, new bureaucratic control systems, and a much more flexible wage system, as discussed above. It also devised various inducement strategies and developed communication channels to control workers culturally and ideologically.²¹

First, HHI implemented a 'One Mind Education Program' for all workers during the period 1989-1991 (Koh, 1996, p. 155). This was a kind of camp training program in which Hyundai mixed entertainment and corporate messages that emphasized cooperation and consent between labor and the management in "one family".

Second, the Hyundai Group ran a cable television channel to disseminate corporate culture and ideology to Hyundai's workers (Chang, P. S., 1991, p. 151-152). In particular, Hyundai broadcasted important information on benefits, wages, and housing with entertaining programs to attract the workers' attention.

²⁰ Of course, this does not mean that the state totally gave up repressive control of the labor movement.

²¹ In other words, Hyundai tried to manage workers' hearts and minds by creating mechanisms that conveyed its corporate culture to its workers (Willmott, 1993, p. 515). Here are some examples of these mechanisms.

Third, the Hyundai Group held various seminars to persuade workers ideologically and culturally (Koh, 1996, p.162). In these seminars, Confucianist ideas, traditional cultures, nationalism, and anti-communism are intermingled with an emphasis on cooperation and loyalty for national and social development. Many movement leaders admit that this strategy is a very powerful tool for controlling workers' consciousness. When I participated in one of these seminars, I found that the emphasis on national prosperity in the ancient period and anti-Japanese feeling were used effectively to persuade workers to work harder for national development.²²

Fourth, Hyundai improved its welfare systems and invested in the development of a workers' community to encourage workers' consent (Hyundai Group, 1994-a, p.5). For example, Hyundai is giving selected workers a chance to travel abroad, especially to Japan, to show them how loyal Japanese workers are to their firms (Chang, P. S., 1991, p.151). More importantly, Hyundai built many cultural and recreational facilities for Hyundai workers in the Dong-Ku area and it provided various educational programs to workers and their families, which have brought significant changes to urban structures and people's lifestyles.

In sum, Hyundai workers' struggle, which originated in the workplace, inevitably and rapidly expanded to the realms of reproduction, national politics, spatial organization, culture, and ideology. In one of the most rapidly industrializing countries in the world, the conflict between labor and capital took compressed and evolutionary steps. It was a new type of warfare in which repressive and violent strategies and modern management and communication skills were used together.

6. Concluding Remarks: Hyundai City after the Crisis

After the financial crisis in Korea in 1997, the IMF program tried to bail out, not Korea, but the U.S., European and Japanese banks that had made bad loans to Korea's capitalists. Rather than helping out the Korean economy in its crisis, the IMF pushed through restructuring along neo-liberal lines to facilitate the penetration and takeover by agents of foreign capital such as the multinational corporations and international banks. Workers are the main victims of this restructuring. In addition to forcing open Korean industry and finance to US business interests and foreign capital, the plans of the Korean capitalists were to use IMF pressure as a pretext for abolishing secure employment, carrying out massive layoffs, and, more generally, shifting the cost of the crisis to the Korean working class. Ulsan, again, was the first place chosen by capital to accomplish these aims. The whole nation watched and wondered who was going to win this battle and how. There was some foreboding that the winner would take everything, and that the winner would be Hyundai. And this was what happened.

In this section, I will briefly discuss the situation in Ulsan City after the crisis. In 1998, the operation rate of the automobile industry in Ulsan dropped to 40% and six subsidiaries and many small sub-contracting companies collapsed (Kim, K. W., 2002). Domestic demand decreased by 42% compared to 1997. Accordingly, HMC destroyed over 8,500 jobs. Under the severe pressure of the economic recession, HMC workers signed an agreement in August that gave power to HMC to dismiss 277 workers immediately and plan the dismissal of 1,261 other workers in 18 months. The power of the trade union was severely weakened and monopolization in the automobile industry strengthened.

Ulsan's industrial structure as a branch factory of Peripheral Fordism persisted into the late

²² For example, a lecturer said, "How come we have internal conflicts such as labor disputes under circumstances where Japan is always blocking the economic development of Korea and is still looking for a chance to dominate Korea again? We have to protect ourselves and we have to unite."

1990s. For example, 45% of the total workers (130,735) in Ulsan were still manufacturing workers as compared to 24% all Korea, while only 8% of workers were in the production service sector, which consists of finance, insurance, and real estate, compared to 12% in the nation as a whole. There were 114,696 workers in 1991. Taking into account automation, spatial rearrangements, sociocultural measures, and a flexible labor market and high labor intensity, we can say that the accumulation regime in Ulsan City was transformed from ‘Bloody’, Primitive Taylorism to Flexible Taylorism until the mid-1990s and from Flexible Taylorism to ‘Bloody’, Flexible Taylorism afterwards. The structural transformations in HMC and HHI and urban change since 2001 need to be analyzed closely to understand not only Korea’s industrial future but also possibly the global shifts in major industries like automobiles and shipbuilding.

Table 1. Proportion of Expenses by Commodities

| Year | ‘73 | ‘77 | ‘81 | ‘85 | ‘89 | ‘91 |
|--------------------------|-------|-------|-------|-------|-------|--------|
| Farm and Marine Products | 33.29 | 32.05 | 26.35 | 19.49 | 14.60 | 13.34 |
| Durables | 2.10 | 4.74 | 3.94 | 2.94 | 5.80 | 6.54 |
| Expendables | 17.26 | 18.30 | 19.58 | 16.96 | 13.93 | 13.09 |
| Semi Durables | 10.47 | 10.75 | 9.29 | 8.80 | 10.17 | 9.60 |
| Private Services | 4.58 | 5.43 | 7.34 | 13.28 | 20.40 | 21.09 |
| Housing | 16.33 | 14.74 | 18.20 | 22.83 | 21.66 | 23.28 |
| Public Services | 15.80 | 13.86 | 15.20 | 15.65 | 13.40 | 13.03 |
| Total Expenses | 41.10 | 95.57 | 25.28 | 39.95 | 72.35 | 102.02 |

Source: EPB Korea, *Yearbook of Urban Household economy*.

★From Paik, W. I. 1994, “Changes in the Structure of Consumption”, *Economy and Society*, No.21, Seoul: Hanul Publishing Co., pp.45-69.

Table 2. Rate of Possession of Durable Consumer Goods

| | HHI (Jan. 1994) | HMC (Nov. 1991) | HPC (Jan. 1994) | Nation (1992) |
|-----------------|--------------------|--------------------|--------------------|------------------|
| Color TV | 100.0 | 97.1 | 100.0 | 87.2 |
| Refrigerator | 100.0 | 89.7 | 100.0 | 86.7 |
| Electric Washer | 100.0 | 75.8 | 100.0 | 69.8 |
| VCR | 90.5 | 58.7 | 100.0 | 43.8 |
| Stereo System | 76.2 | 46.3 | 63.6 | 44.3 |
| Automobile | 76.2 | 15.0 | 34.2 | N/A |

Source: HHITU, 1994, *Ibid*, p. 354; HMCTU, 1993, *Ibid*, p.22.

Table 3: Minimum Monthly Expenses For a Family of Four Estimated by Various Labor Organizations (thousand won)

| | FKTU (A) | NCDTU (B) | HHITU (C) | HPCTU(D) (Changwon) |
|---------------------|-------------|--------------|--------------|------------------------|
| Food | 362.2 | 288.1 | 344.7 | 297.7 |
| Housing | 270.9 | 332.8 | 233.3 | 334.2 |
| Education | 114.7 | 86.1 | 95.0 | 105.0 |
| Health | 80.6 | 95.5 | 108.1 | 112.5 |
| Recreation, Culture | 76.3 | 117.2 | 182.2 | 141.9 |
| Light, Heat, Water | 54.9 | 57.7 | 55.5 | 64.1 |
| Transportation | 38.2 | 39.1 | 42.9 | 47.9 |
| Household Goods | 35.6 | 48.7 | 61.5 | 53.1 |
| Clothes | 22.6 | 78.6 | 150.3 | 83.4 |
| Taxes | 71.1 | 110.5 | 71.3 | 109.8 |
| Total | 1,256.1 | 1,254.2 | 1,344.9 | 1,349.5 |

* FKTU: Federation of Korean Trade Unions NCDTU: National Committee of Democratic Trade Unions HHITU: Hyundai Heavy Industries Trade Union

*HPCTU: Hyundai Precision Corporation Trade Union in Changwon

★★ These organizations calculate the MME on the basis of their members' responses regarding prices and monthly consumption. For example, HHITU annually checks the prices of basic commodities and foods in Ulsan and takes the inflation rate and survey results into account when it judges basic needs and the MME. Source: FKTU, 1993, *Minimum Monthly Expenditure*. (Surveyed in December, 1992)

NCDTU, 1993. *Collected Materials for Wage Bargaining in 1993*. (Surveyed in December, 1992)

HHITU, 1993. *Collected Materials for Wage Bargaining in 1993*. (Surveyed in February, 1993)

HPCTU, 1993. *Collected Materials for Wage Bargaining in 1993*. (Surveyed in February, 1993)

Reformulated from HHITU, 1994. *A Diagnostic Survey Report on Labor Relations in the Hyundai Group*, p.341.

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