CAPITAL–LABOR RELATIONS IN THE JAPANESE CONSTRUCTION INDUSTRY

Teppei Shibata

Abstract: The purpose of this study is to identify the causes of and solutions to the shortage of human resources in Japan’s construction industry from the perspective of the transformation of the capital–labor relations. The findings are as follows. The main reason for the shortage of human resources is the low level of working conditions brought about by the structure of multiple subcontracting and the reproduction of day laborers as a low-wage sector. Therefore, correction of this structure is required. In the 2000s, it became clear that dependent contractors and foreign workers were forming a new low-wage sector. In light of the above, correction of the multi-layered subcontracting structure and improvement of working conditions in the low-wage sector are required to solve the human resource shortage.

Keywords: capital–labor relations; Japanese construction industry; human resource shortage; subcontracting; low-wage sector

I. Introduction

Japan’s construction industry was a key industry that supported the country’s reconstruction after World War II and its subsequent rapid economic growth. In 1997, the year with the highest number of construction workers in the postwar period, the construction industry had 6.85 million workers, accounting for 10.4% of all industries. In the 1990s, the market size of construction investments was 70–80 trillion yen. Moreover, the construction industry has great social significance, as it is responsible for the construction and maintenance of social infrastructure, the construction of office and commercial buildings, and the construction of housing.
However, the shortage of human resources is becoming more serious. Japan has a population of approximately 130 million people and 58 million households. However, according to the “National Census” of the Ministry of Internal Affairs and Communications, there were only 21,000 carpenters in their 20s nationwide in 2015. Therefore, the purpose of this study is to clarify the background to the shortage of human resources in the construction industry from the perspective of the transformation of capital–labor relations.

As an introduction, it will be useful to clarify the current state of the construction industry. The construction industry has been shrinking as a result of the Japanese economy’s slow growth rate. Figure 1 shows the economic growth rate and the amount of construction investment in Japan, which is an indicator of the magnitude of the construction industry.

With this in mind, Figure 1 shows that the amount of construction investment has been tracing the economic growth rate until 2013. This is because economic trends easily influence construction production.

On the other hand, since 2014, the amount of construction investment has been increasing while the economic growth rate has been stagnant. This is due to the reconstruction demand after the Great East Japan Earthquake and the Olympic demand associated with the Tokyo Olympics.

However, if these special demands are settled, Japan’s construction industry will shrink. In addition, as the population of Japan declines and ages, construction production activities are likely to shrink. The construction industry is essential for maintaining human society. Therefore, it is socially significant to solve the shortage of human resources and maintain construction production activities.

Figure 1. The Economic Growth Rate and the Amount of Construction Investment in Japan
Source: SNA (National Accounts of Japan), and Construction Investment Outlook, Ministry of Land, Infrastructure, Transport and Tourism, Japan.
The construction industry is characterized by a multi-layered subcontracting structure. In other words, the structure of the construction industry is one in which a small number of prime contractors (large companies) are at the top and a large number of small- and medium-sized companies form multi-layered subcontractors. As a result, 89.2% (National Association of Small and Medium Enterprise Promotion Organizations 2018, 460; Table 2) of the construction industry’s workforce was employed by small- and medium-sized companies. The Diffusion Index (DI) for the construction industry is calculated by subtracting the percentage of companies that answered “not enough” from the percentage of companies that answered “too many” in the current term. The DI for the construction industry has been consistently negative since July–September 2011, and the severity of the human resource shortage has been increasing. For example, the DI value was –30.2 in the July–September period of 2017, and has been above absolute value –30 since then. Given that all industries are hovering around –20, the shortage of human resources in the construction industry is serious.

Next, let us examine the number of workers. According to the Ministry of Internal Affairs and Communications’ “Labor Force Survey,” the number of workers in the construction industry has decreased by about 30% over the past 22 years, from 6.85 million in 1997, the largest number in the postwar period, to 4.98 million in 2019. This decline is due to the small number of workers entering the industry relative to those leaving in the 2000s. According to the Ministry of Health, Labor and Welfare’s “Survey of Employment Trends,” the number of people entering the construction industry fell by half from 554,000 in 2000 to 246,000 in 2010, and the number of job leavers exceeded the number of job entrants in all 11 years from 2000 to 2011. The number of people aged 24 and under entering the workforce has declined by one third, from 175,000 in 2000 to 65,000 in 2019. As a result, the number of young people entering the workforce has been declining. In other words, according to the “Labor Force Survey” by the Ministry of Internal Affairs and Communications, the number of construction workers aged 29 or younger has halved in both actual number and composition, from 1.36 million in 1999 (20.8% of the total) to 590,000 in 2019 (11.8% of the total). This rate of decrease is larger than that of all industries (22.9% in 1999 and 16.7% in 2019).

In studies by K. Shiina and N. Ikue (2001), the Institute for the Study of Construction Policy (2008a), and the Japan Federation of Construction Contractors (2014), it has been stated that a factor behind the shortage of human resources is low working conditions. The Construction Industry Strategy Council (2012) stated that the reason for the low working conditions is that there are too many companies for the size of the construction market. The Institute for the Study of Construction Policy (2008b) stated that due to the layering of subcontractors, the higher-ranking subcontractors take the middleman’s margin, resulting in lower
working conditions for workers under lower-ranking subcontractors. However, there is no research that clarifies the shortage of human resources from the transformation of capital–labor relations in the construction industry.

Working conditions in an industry are affected by the power relationship between workers and the management, the supply and demand relationship in the labor market, and the national policies. Therefore, clarifying the causes of human resource shortages from capital–labor relations is important. From this perspective, this study aims to identify the causes of and solutions to the shortage of human resources in the construction industry.

II. Current Working Conditions and Multi-layered Subcontracting Structure in the Japanese Construction Industry

This section examines the low labor conditions that cause the shortage of human resources, and discusses the multi-layered subcontracting structure that has contributed to this shortage.

According to the Ministry of Land, Infrastructure, Transport and Tourism (2016), the top answers to the question “Why do companies think young skilled workers do not stay (multiple answers)” were “Work is hard” (42.7%), “Wages are low for the work” (24.2%), and “It is difficult to take vacation” (23.5%). In this survey, construction companies were surveyed.

Let us now consider the actual working conditions. The wages of construction workers have been improving since around 2012 due to government efforts and the upward trend in the economy. According to the Ministry of Health, Labor and Welfare’s “Basic Survey on Wage Structure,” the annual salary of production workers (men) in 2018 was 4.76 million yen in the manufacturing industry as against 4.63 million yen in the construction industry, a difference of 130,000 yen. The average difference in annual income over the last 19 years is 580,000 yen, and the gap in wage levels between the manufacturing and construction sectors is narrowing.

However, it has been pointed out that the increased corporate profits resulting from the recent economic boom have not been sufficiently distributed to workers. Suzuki (2019) has analyzed how the orders and sales of 22 major general construction companies have continued to rise due to increased demand associated with events such as the Tokyo Olympics and Paralympics, but workers’ wages did not increase accordingly. Further, Shibata (2017) found that in 2009, 42.4% of dependent contractors in the construction industry received rewards below the public assistance standard.

Let us take an in-depth look at the current distribution of corporate profits to wages. Table 1 shows the rate of change in Japanese construction companies’ value-added and wages by capital class. In Table 1, 2010 is set as 100.0 and the figures for 2019 are shown. Table 1 shows that while wages increased by 8.5% for
all companies, the rate of increase in value-added was 37.1%. It is clear that the increase in wages is not commensurate with the increase in profits. Companies with a capital of less than 10 million yen and those with a capital of more than 1 billion yen have substantial differences in the rate of increase in wages and value-added. Of these companies, those with less than 10 million yen in capital had a total operating income of −280 billion yen in 2010. In other words, companies in this class may have prioritized the increased value-added to compensate for the deficit.

Next, let us look at working hours and working days. According to the Ministry of Health, Labor and Welfare’s “Monthly Labor Survey,” in 2015, the construction industry worked 2,056 hours while all industries worked 1,734 hours. The number of working days in the construction industry was 251 compared to 224 in all industries. This means that people in the construction industry work about 300 hours longer than all industries, and the number of working days is about one month longer. According to the Ministry of Land, Infrastructure, Transport and Tourism (2016), only about 15% of the technical and skilled workers were able to take two days off per week. According to the Ministry of Health, Labor and Welfare’s “General Survey on Working Conditions,” the percentage of workers who are entitled to a two-day workweek is 59.4% in total for the surveyed industries; thus, the application of the two-day workweek in the construction industry lags behind that of other industries.

From the above, the following points can be summarized. First, although salaries have been on the rise in recent years, they are still low compared to the growth in orders and sales; second, both working hours and working days are longer than in all industries; and third, the two-day workweek is not as widespread as in other

Table 1. Percentage Change in Wages and Value-Added by Capital Class in the Japanese Construction Industry (2010–2019)

<table>
<thead>
<tr>
<th></th>
<th>All companies</th>
<th>Companies with a capital of less than 10 million yen</th>
<th>Companies with a capital of at least 10 million yen but less than 50 million yen</th>
<th>Companies with a capital of 50 million yen or more but less than 100 million yen</th>
<th>Companies with a capital of 100 million yen or more but less than 1 billion yen</th>
<th>Companies with a capital of 1 billion yen or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value-added (2010 = 100.0)</td>
<td>137.1</td>
<td>171.9</td>
<td>116.6</td>
<td>128.2</td>
<td>113.6</td>
<td>155.6</td>
</tr>
<tr>
<td>Wage (2010 = 100.0)</td>
<td>108.5</td>
<td>112.4</td>
<td>106.3</td>
<td>117.3</td>
<td>100.1</td>
<td>116.6</td>
</tr>
</tbody>
</table>

industries. It can be said that these low working conditions have led to a shortage of human resources.

This low level of working conditions is brought about by the multi-layered subcontracting structure. The multi-layered subcontracting structure refers to a structure in which the prime contractor is at the top of the pyramid and there are multiple layers of subcontractors. Based on the Ministry of Land, Infrastructure, Transport and Tourism’s “Report on Statistical Survey of Construction Work Execution, FY2017 Results,” the estimated subcontractor ratio is 53.5%. A high ratio of subcontractors can be observed. In addition to labor unions, the national government and management organizations have proposed correcting the multi-layered subcontracting structure, such as “not creating subcontractors lower than second-tier subcontractors,” based on the harmful effects of the structure.

The multi-layered subcontracting structure is a characteristic of the construction industry in other countries as well (Thomas 2012). For example, a 1995 survey in the United Kingdom revealed five levels of subcontracting among companies undertaking construction work, and a multi-layered subcontracting structure is also seen in France and South Korea.

In these countries, however, measures have been taken to prevent working conditions from being lowered by the multi-layered subcontracting structure. For example, in the United Kingdom and France, wage regulations based on labor agreements limit the decline in wages due to multi-layered subcontracting structures. In addition, in Korea, the law (Basic Law for Construction Industry) was amended in 2008 to require the government to directly hire skilled workers for both prime contractor and subcontractors positions. As a result, the harmful effects of the multi-layered subcontractor structure have been reduced in the Korean construction industry.

In the Japanese construction industry, wages are not regulated through labor agreements, and companies are not required to employ skilled workers directly. As a result, Japan’s multi-layered subcontracting structure results in poor working conditions.

We will clarify the harmful effects of the multi-layer subcontracting structure and the process of its formation below.

First, lower-tier subcontractors extract intermediate margins from higher-tier subcontractors, thereby lowering the level of reward they can pay to the workers they hire and the dependent contractor they use. For example, Shibata (2017) analyzed the case of a dependent contractor working for fourth-tier subcontractors. According to the study, by working for a fourth-tier subcontractor, the dependent contractor could have earned 327,000 yen per month, but 145,000 yen was taken out as a margin, leaving the dependent contractor with only 182,000 yen in reward (Shibata 2017, 145).
The result of these intermediate margins is the disparity in annual income between the employees of the prime contractor and the skilled workers of the subcontractor who work at the site of the prime contractor. Table 2 compares the annual income of the employees of the prime contractor and that of the skilled workers of the subcontractors. Table 2 shows that the annual income of skilled workers is half or less than the annual income of the employees of the prime contractor.

Second, there are cases where, due to the unilateral nature of the contract between the prime contractor and the subcontractor, the prime contractor forces the subcontractor to engage in unfair transactions, such as unilaterally lowering the unit price of the contract or forcing the subcontractor to work for a shorter period of time (which leads to longer working hours). Thus, the multi-layer subcontracting structure is an industrial structure that should be corrected because it leads to a decline in working conditions. How has such a structure formed? We will divide our discussion into two categories: residential construction and large-scale construction such as dams, bridges, offices towers, and condominiums.

Let us begin with the large-scale construction area. According to Sazaki (1998), postwar skilled workers were directly employed by the main contractor until the 1952 revision of the Enforcement Regulations of the Employment Security Law (i.e., the legalization of the labor subcontracting system). However, from the end of the 1950s, as the subcontracting system in the construction industry was formed.
under the leadership of the management, most of the skilled workers of the prime contractors were shifted to labor subcontractors in the late 1960s. In addition, during the period of low growth in the late 1970s, the system of direct employment by specialized construction collapsed, and the shift to multi-layer subcontracting progressed to second and third-tier subcontracting. After this period, the direct employment system of the prime contractors became limited to clerical and technical workers.

The first reason why the management promoted the subcontracting system was to respond to the fact that direct employment would lead to the organization of labor unions (Construction Labor Agreement Study Group 1998, 51). Second, as Yoshimura (2001) pointed out, it was to reduce the burden of social insurance premiums, which were raised one after another during this period, by subcontracting directly employed workers. The disadvantage of not directly hiring workers was that securing human resources became difficult for the management. However, the management began to affiliate with labor intermediaries (referring to brokers who secure and supply workers) by subcontracting or directly hiring them, and securing personnel by supplying groups of workers through these people (Takanashi 1978, 37–42).

This is how the subcontractor system was introduced to the construction industry. In addition, during the period of economic stagnation from the late 1970s to the 1980s, many prime contractors tightened their control over their workers and implemented “weight reduction management” based on strict order management for subcontractors (Institute for the Study of Construction Policy 2008a, 16). As a result, subcontractors were able to establish their own management and responsibility for construction work. Under these circumstances, subcontractors who faced a difficult business environment began to subcontract again, shifting their responsibility to lower-ranking subcontractors. This way, the multi-layered subcontracting progressed.

Until the 1950s, consumers commissioned local construction companies (mostly self-employed) to build their houses, and the construction companies built the houses through a horizontal division of labor with construction companies in each occupation. In the 1960s, however, major housing companies such as Sekisui House and Daiwa House Industry entered the detached house building market and expanded their market share through technological innovation. In other words, the major housing companies expanded their market share by advertising their capital strength and lowering the price of housing through factory production of housing components such as pre-cutting.

Against the backdrop of this increase in market share, local construction companies were either eliminated or reorganized into subcontractors of the major housing companies (Shiina 1983). In addition, the major housing companies
promoted a multi-tiered subcontracting system in production, which led to the establishment of a multi-tiered subcontracting system in the housing construction field. As pointed out by the Institute for the Study of Construction Policy (2008a), the reasons why the major housing companies promoted subcontracting were the same as those in the large-scale construction field.

As a result of the progress of the above-mentioned multi-layer subcontracting system, in the early 1990s, the employees of prime contractors were transformed into those who were only responsible for receiving orders and supervising construction work (on-site construction was done exclusively by skilled workers and dependent contractors for subcontractors) (Shibata 2020, 50). In addition, since the late 1990s, as Koseki, Muramatsu, and Yamamoto (2003) pointed out, there have been new changes in the multi-layer subcontracting system. In other words, prime contractors have stopped giving priority to subcontracting work to affiliated subcontractors and started subcontracting work to companies that can offer lower prices. As a result, the shakeout of subcontractors has progressed further.

The process of advancing the subcontracting system in the construction industry was a process by a few large companies dominating the construction industry. This fact can be confirmed using several indicators.

Table 3 shows the ratio of the number of companies, total capital, operating profit, and value-added by capital class. For the sake of convenience, “companies with capital of 1 billion yen or more” are defined as large companies in the following. Table 3 shows that large companies accounted for only 0.1% of all construction companies from 1980 to 2019, but their share of total capital is 30% to nearly 40%, indicating the concentration of capital.

Large companies also accounted for over 30% of operating profits, and less than 50% in 2000 and 2010 (see Table 3). Operating profit is directly related to market dominance because it represents the results of a company’s original business activities. Therefore, the current state of operating profit shows that large companies strongly influence the construction market.

On the other hand, the percentage of construction companies with capital of less than 10 million yen decreased from 85.3% in 1980 to 68.1% in 2019. Similarly, the ratio of total capital to operating profit also declined. In other words, while large companies are gaining control of the construction industry, smaller companies are being restructured and eliminated. The following is a summary of what has become clear from our analysis. When the subcontracting system was introduced in the construction industry, large companies became more dominant and began to control production through a multi-layered subcontracting system. Suppose we define monopoly capital as a small number of large companies that control capital and production intensively. In that case, we can say that the large companies in the construction industry during this period became monopoly capital.
Table 3  The Ratio of the Number of Companies, Total Capital, Operating Profit, and Value-Added by Capital Class in the Japanese Construction Industry

<table>
<thead>
<tr>
<th></th>
<th>All companies (%)</th>
<th>Companies with capital of less than 10 million yen (%)</th>
<th>Companies with capital of at least 10 million yen but less than 50 million yen (%)</th>
<th>Companies with capital of 50 million yen or more but less than 100 million yen (%)</th>
<th>Companies with capital of 100 million yen or more but less than 1 billion yen (%)</th>
<th>Companies with capital of 1 billion yen or more (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1980</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of companies</td>
<td>100.0</td>
<td>85.3</td>
<td>13.6</td>
<td>0.6</td>
<td>0.4</td>
<td>0.1</td>
</tr>
<tr>
<td>Total capital</td>
<td>100.0</td>
<td>22.4</td>
<td>24.4</td>
<td>5.4</td>
<td>12.3</td>
<td>35.4</td>
</tr>
<tr>
<td>Operating profit</td>
<td>100.0</td>
<td>21.1</td>
<td>26.5</td>
<td>6.9</td>
<td>13.2</td>
<td>32.3</td>
</tr>
<tr>
<td>Value-added</td>
<td>100.0</td>
<td>42.9</td>
<td>24.9</td>
<td>4.7</td>
<td>9.8</td>
<td>17.7</td>
</tr>
<tr>
<td><strong>1990</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of companies</td>
<td>100.0</td>
<td>78.1</td>
<td>20.5</td>
<td>1.0</td>
<td>0.4</td>
<td>0.1</td>
</tr>
<tr>
<td>Total capital</td>
<td>100.0</td>
<td>14.2</td>
<td>32.2</td>
<td>6.7</td>
<td>10.6</td>
<td>36.3</td>
</tr>
<tr>
<td>Operating profit</td>
<td>100.0</td>
<td>22.2</td>
<td>28.7</td>
<td>6.0</td>
<td>10.7</td>
<td>32.4</td>
</tr>
<tr>
<td>Value-added</td>
<td>100.0</td>
<td>33.9</td>
<td>31.0</td>
<td>5.1</td>
<td>8.7</td>
<td>21.3</td>
</tr>
<tr>
<td>Year</td>
<td>Number of companies</td>
<td>Total capital</td>
<td>Operating profit</td>
<td>Value-added</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>---------------------</td>
<td>---------------</td>
<td>------------------</td>
<td>-------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>100.0</td>
<td>8.3</td>
<td>–3.3</td>
<td>21.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>57.0</td>
<td>36.8</td>
<td>26.8</td>
<td>44.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>41.4</td>
<td>10.6</td>
<td>13.7</td>
<td>7.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.3</td>
<td>11.0</td>
<td>16.5</td>
<td>8.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.3</td>
<td>33.3</td>
<td>46.2</td>
<td>18.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>100.0</td>
<td>10.6</td>
<td>–17.7</td>
<td>23.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>62.2</td>
<td>38.1</td>
<td>26.3</td>
<td>40.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>36.0</td>
<td>12.9</td>
<td>21.5</td>
<td>8.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.5</td>
<td>11.3</td>
<td>21.5</td>
<td>9.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.3</td>
<td>27.1</td>
<td>48.3</td>
<td>17.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>100.0</td>
<td>14.5</td>
<td>12.9</td>
<td>28.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>68.1</td>
<td>33.3</td>
<td>30.7</td>
<td>34.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>30.1</td>
<td>10.4</td>
<td>10.5</td>
<td>8.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.5</td>
<td>11.2</td>
<td>9.8</td>
<td>8.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.3</td>
<td>30.5</td>
<td>36.0</td>
<td>20.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The monopoly capitalization of large companies in the construction industry will weaken the regulatory power of labor unions, as we will see later.

III. Transformation of the Construction Labor Market and Low-Wage Sector in Japan

In this section, we will review the process of formation and transformation of the construction labor market, and clarify the reproduction structure of the low-wage sector.

So far, the construction labor market has been discussed in relation to the poor. For example, Eguchi (1980), who was conducting research on poverty in Japan during the period of rapid economic growth, stated that the working poor in Japan during this period were mainly “day laborers” and “nominally self-employed,” and that they formed a pool of the poor that could not be exhausted. In other words, if the number of workers in the pool of the poor is reduced, public assistance recipients and the unemployed will flow into this pool of the poor. As a result, the number of workers in the pool of the poor will not decrease. This section will examine day laborers.

After the launch of the relief program for the unemployed (i.e., civil engineering projects, such as road maintenance, carried out by the national government or local governments as a countermeasure against unemployment) in 1949, day laborers began to appear in large numbers throughout Japan, mainly those registered with the relief program for the unemployed. In the 1950s, the number of such workers hovered around 200,000 (Eguchi 1979, 155–156). According to Eguchi, day laborers are characterized by low wages, irregular and unstable employment, and easy access to simple physical labor. Eguchi defined the day labor market as an open labor market because of its open nature (Eguchi 1980, 49–200).

Although the unemployment countermeasures program was abolished in 1995, day labor and temporary employment similar to day labor have become common in the construction industry. According to the “Labor Force Survey” by the Ministry of Internal Affairs and Communications, the total number of temporary (employment contracts lasting between one month and one year) and day laborers (employment contracts lasting less than one month) in the construction industry hovered between 500,000 and 600,000 throughout the 1990s, and has been declining since the 2000s; however, as of 2017, 230,000 people were still working (Eguchi 1980, 49–200).

Another reason for the increase in day laborers is the presence of migrant workers from rural areas. In other words, the Basic Law on Agriculture enacted in 1961 encouraged active mobilization of the rural labor force, and the number of workers who migrated from the Tohoku region to urban areas increased rapidly. A portion
of these migrant workers has flowed into the construction industry. In other words, according to Kato (1991), migrant workers who came from rural areas during the period of rapid economic growth formed a low-wage labor force in the construction industry (Kato 1991, 233–234).

This way, the relief program for the unemployed and the influx of workers from rural areas formed the daily wage labor force. The influx of workers from other industries continued until the late 1990s, and according to the Ministry of Labor’s (1998) “1998 Analysis of the Labor Economy,” the construction industry, like the service industry, plays a role in absorbing the unemployed and those who change jobs.

Further, as small and medium-sized companies that employ skilled workers face a difficult business environment, the daily wage system is spreading among not only daily workers but also workers who are considered to be permanently employed. In other words, regularly employed workers are paid on a daily or monthly basis (daily wage × number of working days = monthly wage; therefore, if the number of working days decreases, the monthly salary also decreases), and the reality is such that it can be called long-term daily employment.

According to the Ministry of Land, Infrastructure, Transport and Tourism (2016), while more than 80% of engineers are paid on a monthly basis in Japan, more than 60% of skilled workers are paid on a daily basis; even today, more than half of the skilled workers are paid on a daily basis (Ministry of Land, Infrastructure, Transport and Tourism 2016, 13). From the above, we can see the formation of the daily wage workers as a low-wage labor force and its spread within the industry.

As the industry became increasingly multi-layered and subcontracted, prime contractors established their own internal labor markets. Matsuda (1992), while discussing the relationship between the multi-layered labor market and wages in the construction industry in the late 1980s, pointed out the existence of a multi-layered wage gap with the prime contractor’s employees at the top. Table 4 summarizes the characteristics of this gap.

Table 4 shows that employees of the prime contractor are paid a monthly salary with a bonus. They also receive internal training under the internal promotion system to acquire skills. In addition, their level of remuneration is higher than that of the employees of the subcontractors, foremen, and workers, even excluding bonuses (Matsuda 1992, 146). On the contrary, the amount of bonus and promotion opportunities for subcontractors are more limited than those for prime contractors. In addition, the prime contractor hires new college graduates and the subcontractor hires new high school graduates to secure the labor force. Hence, there is a barrier to entry in terms of educational background (126–135).

However, there are no bonuses or promotions (daily wages may increase with years of service, but positions do not change) for the foremen and workers, and training costs are borne by the individual in the sense that they learn by observing
the work of their supervisors and seniors. In addition, the procurement of labor depends on migrant workers and introductions by blood and land relatives, and there are no entry barriers. Therefore, the labor market for foremen and workers is open and has a lot in common with the day labor market (Matsuda 1992, 136–138).

Matsuda (1992) found that although employees of the prime contractor may be temporarily transferred to subcontractors, they do not become foremen or workers, nor are foremen or workers promoted to employees of the prime contractor or subcontractors.

In other words, the labor markets of prime contractors and subcontractors, which form the internal labor market, and the labor markets of foremen and workers, which form the external labor market, do not move mutually and are considered to be divided. However, today’s prime contractors are only responsible for receiving orders and overseeing the construction process. Moreover, as market competition intensifies, some subcontractors who employ skilled workers are beginning to adopt a daily wage system rather than a monthly wage system. This is evident from the fact that more than 60% of skilled workers are paid on a daily basis. And they are supplied by the external labor market as well as the foremen and the workers (Institute for the Study of Construction Policy 2008b). Hence, it can be assumed that subcontractors are beginning to share with the external labor market.

In any case, it is important to note that this external labor market shares a lot with the day labor market, which is a low-wage sector, and upward mobility to the internal labor market is difficult. This has the effect of keeping the low-wage sector in the current market. The result is the disparity in annual earnings between the employees of prime contractors and the skilled workers of subcontractors, as shown in Table 2.

Table 4. Relationship between the Multi-layered Labor Market and Wages in the Construction Industry in the Late 1980s in the Japanese Construction Industry

<table>
<thead>
<tr>
<th></th>
<th>Remuneration payment method</th>
<th>Bonus existence</th>
<th>Training cost existence</th>
<th>Promotion existence</th>
<th>Entry restriction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prime contractor employee</td>
<td>Monthly wage system</td>
<td>Yes (large)</td>
<td>Company contribution (large)</td>
<td>Yes (large)</td>
<td>Yes</td>
</tr>
<tr>
<td>Subcontractor employee</td>
<td>Monthly wage system</td>
<td>Yes (medium)</td>
<td>Company contribution</td>
<td>Yes (medium)</td>
<td>Yes</td>
</tr>
<tr>
<td>Foreman</td>
<td>Monthly wage system</td>
<td>None</td>
<td>Individual contribution</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Workers</td>
<td>Daily wage system</td>
<td>None</td>
<td>Individual contribution</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

The background to the formation of such a low-wage sector labor market is related to the weakening of the regulatory power of labor unions. First, there was a time when labor unions shaped the wage market in the construction industry. As already mentioned, until the 1950s, local construction companies received requests from consumers to build houses, and construction was carried out through a horizontal division of labor rather than a subcontracting system. In this era, construction companies were mainly self-employed, and the wages of the workers hired by the self-employed were determined by a labor union agreement. Agreed wages mean that the labor union decides the minimum wage for each job category, and this wage regulation was possible because the construction labor unions of the time were characterized as craft unions that included construction companies (self-employed workers) (Shimoyama 1984).

However, with the entry of major housing companies into the market since the 1960s, the main constituent of the wage market price in the housing industry gradually shifted from the labor unions to the major housing companies. This was also due to technological innovations in the construction industry. In other words, before technological innovation, housing construction required manual skill, and the labor unions had the power to determine the wage rate based on the manual skill of the craftsmen.

However, technological innovations such as the factory production of housing components, the spread of machine tools, and the spread of the two-by-four construction method have reduced production areas that require manual skill. The dismantling of manual skills has also deprived self-employed construction workers of their independence and turned them into laborers. From the mid-1970s onward, agreed wages almost completely lost the wage market-making power (Kinoshita 1991, 5).

Moreover, from this time, labor unions began to try to shift their strategy from wage agreements to labor agreements (National Federation of Construction Workers’ Unions 1985, 83–84). However, according to Hasebe (2019), no labor agreement has been signed as of 2019. The lack of labor agreement makes it difficult to exert regulatory power over the low-wage sector.

The formation of an industrial order in the construction industry that excludes labor unions has also weakened their regulatory power. The details of this order are discussed in Construction Labor Agreement Study Group (1998). In the construction industry, subcontractors are placed in a weaker position than the prime contractor, making it difficult for the former to negotiate for higher unit prices and construction periods offered by the latter.

As a result, the working conditions of workers who work for subcontractors and those who work for dependent contractors are regulated by the subcontractor’s unit price and construction period set by the prime contractor. Therefore, the labor unions
that organize the workers of subcontractors should proceed with labor-management negotiations under such restricted conditions. If the working conditions are not improved through negotiations under such restricted conditions, workers’ dissatisfaction will accumulate. Therefore, a mechanism to prevent the accumulated dissatisfaction from being directed toward the management became necessary.

The labor intermediaries described in Section 2 are responsible for this mechanism. The labor intermediaries not only supplied groups of workers, but also prevented workers from joining labor unions by addressing their daily grievances and demands on an individual basis. Moreover, they determined the amount of remuneration paid to workers within the framework of the labor costs that management was willing to pay (Construction Labor Agreement Study Group 1998, 54–55). This industrial order played an important role in shaping an industrial order that excluded labor unions until the late 1970s, when labor intermediaries became precarious workers.

In this section, I have clarified the formation and reproduction structure of the day labor market as a low-wage sector and shown that labor unions do not have the power to regulate such a structure. The next section will examine the changes in the labor market and the government’s construction policy in the 2000s.

IV. Labor Market Changes and Construction Policies in the 2000s in the Japanese Construction Industry

This section examines changes in the labor market, the formation of new low-wage sectors, and changes in the national construction policy in the 2000s.

As we have discussed, the construction industry has been a recipient of migrant workers and people moving out of other industries. However, since the 2000s, it has been transformed into an industry that discharges labor. In other words, according to the “Employment Status Survey” by the Ministry of Internal Affairs and Communications, 1,046,000 people in the construction industry changed their place of employment between 1997 and 2002, and 609,000 of them moved to places other than the construction industry. In response to these changes in the construction labor market, the national construction policy viewed the current situation of the construction industry as having too many companies. Subsequently, the government encouraged the restructuring and elimination of companies with weak management capabilities, such as those unable to pay social insurance premiums.

In the 2000s, the number of day laborers also began to decline. According to the “Labor Force Survey,” the total number of day laborers and temporary workers was 500,000 (7.7% of the total) in 2000, but by 2017 it had fallen to 230,000 (4.6% of the total). However, the percentage of this category has been rising for dependent contractors and foreign workers. In other words, according to the “Labor Force
Survey,” the percentage of dependent contractors rose from 8.3% in 2000 to 11.9% in 2017. According to Shibata (2017), the shift to precarious employment of these dependent contractors had been progressing in the 2000s. In other words, dependent contractors emerged as a new low-wage sector in the 2000s.

The number of foreign workers in the construction industry, according to Era (2021), has increased 7.3 times in eight years, from 12,830 in 2011 to 93,214 in 2019. Monthly wages for foreign workers range from 170,000 yen to 220,000 yen. Foreign workers belong to the external labor market. In other words, foreign workers form a new low-wage sector similar to that of dependent contractors (Era 2021, 272–285).

How are national construction industry policies responding to the current situation of the construction industry, which is characterized by a multi-layered subcontracting structure and the formation of a low-wage sector? Since there is a wide range of policies, we will examine some of the most distinctive aspects of these policies since the 2000s, when the shift to a labor-draining industry began to be discussed.

According to the “Construction Industry Policy 2007” and “The Construction Industry Strategy Council (2012),” which represent the construction policies of the Ministry of Land, Infrastructure, Transport and Tourism, the oversupply structure of construction companies was identified as a problem, and the policies were put in place to weed out “unqualified contractors” such as companies that leave their employees without social insurance. The idea behind these policies was to solve the problem by restructuring and eliminating small and medium-sized subcontractors, excluding the prime contractor.

The government’s construction policy since then is outlined in the “The Construction Industry Policy Council (2017)” which states that the issue of securing human resources is an industry-wide problem that needs to be solved through cooperation among the four parties: prime contractors, subcontractors, workers, and the government. Moreover, the positioning of the improvement of working conditions as a policy issue, and the raising of wage levels and the correction of long working hours as issues to be solved, were also viewpoints that had not been seen in previous policies. Another feature of the policy is that it includes the correction of the multi-layered subcontractor structure.

Next, we will examine the efforts of the construction industry. In 2014, the Japan Federation of Construction Contractors, a management organization of Japan’s major construction companies, issued a proposal to secure and develop human resources for construction workers. In its recommendations, it set the average target annual salary for workers in their 40s at 6 million yen. It is extremely rare for a management group to set a target to increase workers’ wages, and it is clear that the shortage of human resources is serious.
Such an improvement in working conditions is something that labor unions have been seeking for a long time. In this sense, the conditions are now in place for the improvement of working conditions. However, there are no concrete measures to correct the multi-layered subcontracting structure or to achieve an annual income of 6 million yen, and individual companies are obligated to make efforts. Therefore, it remains unclear whether improvements will be made.

V. Conclusion

In this study, we have examined the background to the current shortage of human resources in the construction industry from the perspective of changes in the capital–labor relations, and the following points have become clear.

First, the reason for the shortage of human resources is the low level of working conditions, which is caused by the existence of a multi-layered subcontracting structure and reproduction structure of the low-wage sector. Second, the low-wage sector is formed by the day labor market. The division of the labor market and the weakening of the regulatory power of labor unions have reproduced the low-wage sector. Third, changes in the labor market in the 2000s include a shift to labor-draining industries and the formation of a new low-wage sector of dependent contractors and foreign workers. Fourth, although the government and construction industry have begun to improve the working conditions and correct multi-layered subcontracting, these measures are not enforceable and are left to the efforts of individual companies.

Thus, the current construction policy is promoting initiatives that contribute to solving the shortage of human resources, such as correcting the multi-layered subcontracting structure and improving the working conditions; however, these are only mandatory efforts. In the future, it will be necessary to achieve results through policies that are enforceable. In addition, labor unions are expected to make labor agreements and exercise their regulatory power to prevent the reproduction of a new low-wage sector.

In Japan’s construction industry, poor working conditions are caused by a multi-layered subcontracting structure. It is important to control the decline in wages caused by a multi-layered subcontracting structure through concluding labor agreements. In terms of regulating the reproduction structure of the low-wage sector, it is also important to organize foreign workers into labor unions.

The National Federation of Construction Workers’ Unions and other organizations are already working on organizing dependent contractors into labor unions, but it is necessary to further strengthen this effort in the future. This is because, as Era (2021) points out, the low-wage sector of the US construction labor market is made up of immigrant and foreign workers who are not covered by labor
agreements. As mentioned earlier in this paper, the new low-wage sectors in Japan’s construction industry are dependent contractors and foreign workers. Hence, if Japanese labor unions are able to conclude labor agreements but exclude dependent contractors and foreign workers, they will allow the reproduction of the new low-wage sector. It can be said that labor unions are required to promote these efforts.

Notes

4. The DI refers to Diffusion Index, which is an index of various judgments, such as the excess or shortage of employees in a company. Data from the Organization for Small & Medium Enterprises and Regional Innovation, Japan’s “Survey of Business Conditions of Small and Medium Enterprises” was used. See https://www.statista.com/statistics/1109068/japan-business-conditions-di-companies-by-company-size/.


See https://www.mof.go.jp/english/pri/reference/ssc/.

A “nominal self-employed person” is defined as “one who does not have the substance of an independent self-employed person” (Eguchi 1980, 5). Eguchi also lists a number of occupations, but includes dependent contractors in the construction industry.

For more information on technological innovation in the construction industry, see Shiina and Ikue (2001) and Shiina (1983).


23. For more information on technological innovation in the construction industry, see Shiina and Ikue (2001) and Shiina (1983).


29. The National Federation of Construction Workers’ Unions is the construction labor union with the largest number of members in Japan. As of June 2020, the union had 627,000 members. See http://www.zenkensoren.org/.

References


