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How Does Labor Migration Occur in Japan? Policy and Labor Demand in the
Seafood Processing Industry

A dissertation submitted in partial satisfaction of the requirements for the degree
Doctor of Philosophy

in

Sociology

by

Yusuke Mazumi

Committee in Charge:

Professor Ivan Evans, Co-Chair
Professor Christena Turner, Co-Chair
Professor Jeffrey Haydu
Professor Vanesa Ribas
Professor Ulrike Shaede

2014

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2014

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ABSTRACT OF THE DISSERTATION

How Does Labor Migration Occur in Japan? Policy and Labor Demand in the Seafood Processing Industry

by

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Doctor of Philosophy in Sociology

University of California, San Diego, 2014

Professor Ivan Evans, Co-Chair
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This dissertation investigates how labor migration occurs in Japan. While Japan has accepted migrants in the last two decades, under the restrictive regime of immigration, labor migration at the bottom of labor market has mainly occurred through Japan's *de facto* temporary migrant worker program: the Foreign Trainee/Technical Intern Program. Nevertheless, the demand for migrants through this program is still small nationally, and, moreover, varies locally. Both the literature of labor migration, which takes the Western context of migration for granted, and that of immigration policy, which takes Japan more seriously but focuses on why its

immigration policy is restrictive, have failed to engage these puzzles. The dissertation interrogates these issues by looking at the seafood processing industry.

This dissertation makes two arguments. First, it argues that migrants are more likely to be brought into seafood processing sites that have gone through what the author calls petite industrialization. While the seafood processing industry may overall be a competitive sector of the economy that needs migrant labor, the demand for migrants is more prominent where the local seafood processing sector has developed a more industrialized production system. The demand for migrants is small and geographically concentrated since petite industrialization is an exception in the industry. Second, it also argues that petite industrialization matters since an imperative of mass production necessitates a stable input of labor for intensive work. Trainees and technical interns are a preferable labor force due to their stability on a year-round basis. This dissertation argues that the concentration of migrants in the petite-industrialized seafood processing industry demonstrates the way this industry has adapted to Japan's labor migration policy as an opportunity structure of labor migration.

The dissertation conducts both a quantitative and qualitative analysis. A statistical regression analysis draws upon the dataset constructed from available official datasets. This analysis is supplemented by a qualitative investigation of two seafood processing sites, the data for which was garnered from the author's interviews with seafood processing companies and other relevant informants as well as secondary published materials. The secondary literature is also used for the comparison with the American food processing industry.

Chapter 1.
**Japan in the Era of Global Labor Migration: Addressing an Old Question in the
New Context**

Is it possible to imagine U.S. agriculture and service industries without Mexican migrant labor, or Arab oil without Palestinians and Pakistanis? ... Mass migrations have become necessary for production.

(Hardt and Negri 2000: 397-398)

In short, *international* migration is an inherently *political* process...

(Zolberg 1999: 81)

International migration is one of the most prominent social dynamics in the era of globalization. In 2013, the population of international migrants is estimated to be 232 million, which is equal to about 3.2 percent of the world population (United Nations 2013). The increase of international migrants in the world has accelerated over the last decade, recording an average annual increase of 2.2 percent between 2000 and 2013 (United Nations 2013).¹ The growth of the migrant population has also proceeded in parallel with the geographic expansion of migrant destinations. The postwar increase of migrants has primarily been led by the migration to settler countries such as the United States and Canada, or Western Europe. Since the late 1980s, however, migrants have also increasingly relocated to other regions of the world, most notably, Southern Europe and East Asia.

While Japan is known for its consistent refusal to admit migrants throughout the postwar era, it is no longer an exception to the current trend of global labor

¹ On the other hand, the increase rate averaged 1.2 percent in the 1990s (United Nations 2013).

migration.² Against the backdrop of a booming economy and severe labor shortages, Japan finally made revisions in its policy regarding labor migration in the early 1990s. These revisions have in turn led to the reception of migrants to an unprecedented degree in the postwar history of Japan. The growth of the migrant population in Japan is apparent even with a cursory look at an official statistics. Figure 1.1 shows the number of registered foreigners over the postwar period.³ Up until the late 1980s, the foreign population in Japan had consistently been less than one million. However, this population has shown a continuous growth since then, and, in 2005, it surpassed two million for the first time. Although the global economic recession of the late 2000s appears to have contributed to the decrease of foreigners, it is still true that the foreign population has almost doubled in the last two decades. This increase of migrants led prominent scholars of immigration to declare Japan as one of “new countries of immigration” (Cornelius et al. 2004) or “new countries of destination” of migrants (Freeman and Mo 1996).

² In the Japanese terminology, migrants who work are usually referred to as “foreign workers” (*gaikokujin rōdōsha*). However, in line with the terminology of the sociological immigration literature, this dissertation employs the term “migrants” or “migrant workers” to denote *gaikokujin rōdōsha* in Japan.

³ In the Japanese official statistics, “foreigners” (*gaikokujin*) include those who are second and later generations as well as foreign-born migrants. This is because Japan has a *jus sanguinis* principle in its citizenship policy. Since the official statistics mixes these groups together as “foreigners,” it is unable to separate the foreign-born from foreigners who were born in Japan. In this dissertation, when I refer to “foreigners” or “foreign population” in relation with the data from the Japanese official statistics, I (need to) mean both the first and the second and later generations who do not possess Japanese citizenship.

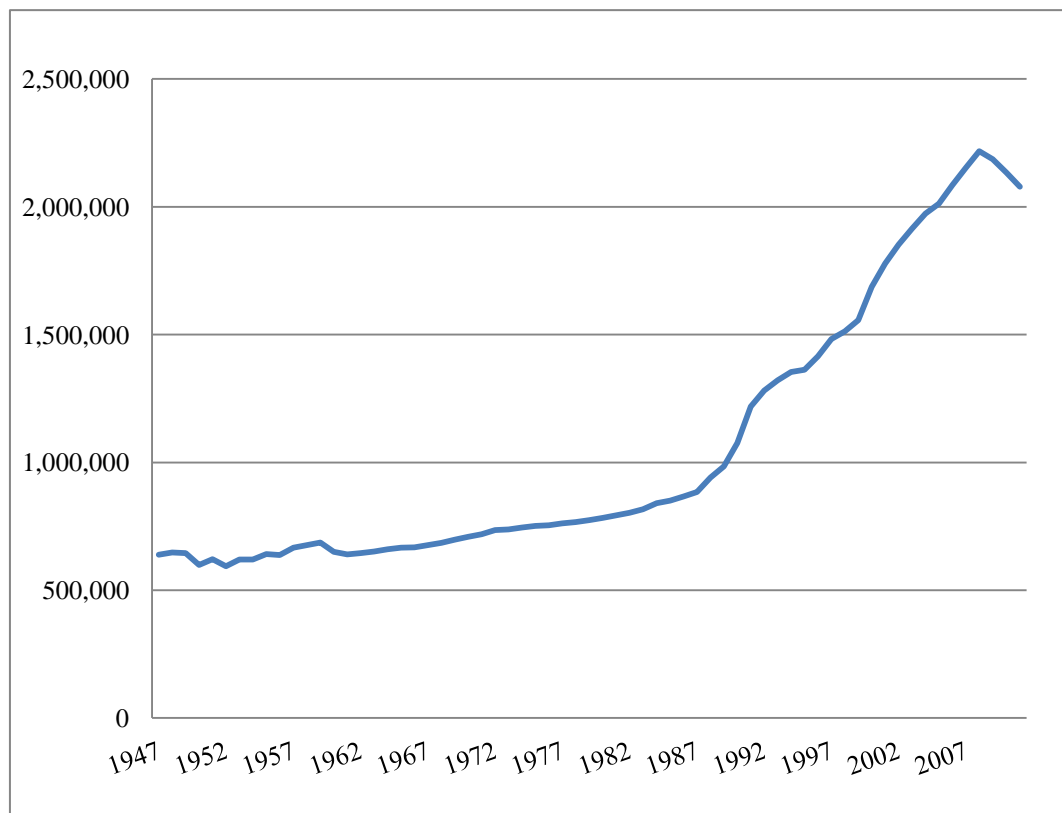


Figure 1.1: Number of Registered Foreigners in Japan, 1947-2011. Source: Created by the author from data taken from the Japanese Statistics Bureau (1947-2009) and the Japanese Ministry of Justice (2010, 2011).

Whereas the increase of migrants in the last two decades offers a *prima facie* indication that Japan is approaching the immigration level of large migrant-receiving countries in the West, it is very important to note that Japan still possesses one of the most restrictive policies in the world when it comes to the admission and settlement of migrants. Concerned with social and economic consequences caused by the settlement of migrants, for example, Japan has no admission policy based on permanent residency. Moreover, Japan also has no “official” policy of low-skilled labor migration. In fact, throughout the postwar period, Japan has been consistent in its official principle that it

accepts no “low-skilled workers” (*tanjun rōdōsha*). As a result, the relative size of the migrant population still remains small. For instance, in 2008, when the number of registered foreigners marked a historic high (2,217,426), the percentage of foreigners in the total population of Japan was still less than 1.7 percent.⁴ Even with the (estimated) number of illegal migrants included, the percentage was still below two percent of the population in the same year.⁵ This low percentage stands in a sharp contrast to an overall tendency observed in economically developed regions of the world, where the migrant population averages 11 percent of the total population (United Nations 2013).⁶

However, that Japan has no “official” admission policy regarding low-skilled labor migrants does not mean that it admits no migrants who do low-skilled work. While officially maintaining a prohibitive stance on the admission of low-skilled labor migrants, the policy changes in the early 1990s also allowed for “side doors” for admitting *de facto* migrant workers. The establishment of a vocational training program – the Foreign Trainee/Technical Intern Program (*Gaikokujin Kenshū/Ginō Jisshū Seido*) (hereafter, the FTTIP) – is case in point. Whereas a growing number of migrants are now fulfilling “jobs that natives do not want” at the bottom of the labor

⁴ The figure is calculated by the author from data from the Japanese Statistics Bureau (2008) and the Japanese Statistics Bureau (1947-2009).

⁵ In Japan, illegal migrants mainly refer to visa overstayers, or migrants who stay in the country after the period of stay stipulated by their visa expires. There is currently no estimate on the number of smugglers. Yet, the number of smugglers is not expected to be extraordinarily large, given the geography of Japan (surrounded by oceans). The number of visa overstayers has been decreasing since the early 1990s. In 2011, the number of them counted 78,488, a 74 percent drop from 1993 when it marked its historic high (298,646) (Japanese Ministry of Justice 1987-2011).

⁶ According to the United Nations (2013), “developed regions” comprise Europe, North America, Australia and New Zealand, and Japan.

market across economically developed countries, in Japan, this role is mainly assumed by so-called trainees (*kenshūsei*) and technical interns (*ginō jisshūsei*). Mostly coming from lesser-developed Asian countries, these migrants work in industries with poor working conditions and compensations, such as apparel, food processing, and agriculture.⁷

The FTTIP is a *de facto* temporary migrant worker program, which the Japanese government - that is unwilling to officially receive migrants - contrived to provide migrant labor to domestic businesses, especially small- and medium-sized companies. The FTTIP enables businesses in certain industries to bring *de facto* migrant workers in for three years.⁸ Once introduced, migrants work for (or officially, are trained by) the same employer for low pay. When this “training” period is completed, migrants are required to return to their home countries with no possibility of coming back with that same legal status in the future. Thus, the circulation of business-inviting, transitional labor presents one defining feature of labor migration at the bottom of the labor market in Japan.

To be sure, this is not to say that the acceptance of low-skilled labor migrants through a temporary worker program is distinctive to Japan. Temporary migrant

⁷ Policy revisions in the early 1990s also induced an influx of Japanese-origin individuals from overseas (so-called *Nikkeijin*), especially from Brazil, who are admitted as “long-term residents” (*teijūsha*). *Nikkeijin* workers, whose visa status poses no legal constraint on their economic activity, tend to work in relatively higher-paying industries, such as the automobile industry. For labor management of *Nikkeijin* workers, see Kajita, Tanno, and Higuchi (2005), Okubo (2005), and Tanno (2007).

⁸ It should be noted that the FTTIP saw a policy revision in 2009, which led to the abolition of the Foreign Trainee Program. Due to this, since 2010, migrants accepted through this program have been admitted as technical interns from their first year. This issue will be detailed later in this chapter.

workers have a long history in the world (Hahamovitch 2003). In an attempt to make migrants fulfill low-skilled works through a regularized channel, temporary migrant workers are also currently introduced in a variety of national settings (Martin 2006; Plewa and Miller 2005; Ruhs 2003), including Western European countries such as Germany and Britain (Castles 2006), which once appeared to withdraw from such an endeavor (Castles 1986). Though still deadlocked in the Congress as of the writing of this thesis (Winter of 2014), the immigration overhaul of the United States also considers an expansion of temporary worker programs in tandem with the discussion concerning a path to citizenship for illegal migrants (Parker and Greenhouse 2013).

Accordingly, Japan is not distinctive simply because it uses a (though *de facto*) temporary migrant worker program for securing migrant labor. What makes Japan distinctive, however, is that, under the restrictive regime of immigration that produces little legal and illegal “immigration,”⁹ the temporary worker program of the FTTIP represents one of the major channels through which labor migration occurs. Thus, while Japan is now experiencing the increase of labor migrants, the way in which low-skilled labor migration occurs is certainly different from major migrant-receiving countries where it happens principally through “immigration.”

This dissertation addresses specifically how labor migration occurs under the FTTIP in Japan. One specific consequence of the FTTIP-led labor migration in Japan is immediately apparent. Whereas, in the Western societies, labor migration often proceeds in the way that creates a concentration of migrants in large urban centers in

⁹ Regarding the discussion of how legal migration under an expansive regime of immigration may also induce a large flow of illegal migrants, see Massey, Durand, and Malone (2002).

relative as well as absolute terms (Bauder 2006; Schiller and Simsek-Caglar 2011; Waldinger and Bozorgmehr 1996) because of ostensibly rich economic opportunities (Sassen 1988) or the presence of relatives or acquaintances of migrants (Massey et al. 1987; Waldinger 1996; Waldinger and Lichter 2003; Waters 1999), labor migration through the FTTIP tends to be geographically dispersed in Japan (Iguchi 2012), reflecting the nature of the program in which employers demand and bring in migrants. Besides this, however, we know very little about how labor migration actually plays out in Japan. To the extent that we have knowledge, it is at best limited to the fact that small- and medium-sized companies – or in the Japanese term, *chūshō kigyō* – are seizing on the FTTIP to bring in and use migrants in various parts of Japan for their alleged difficulty in securing native-born workers. But not all small and medium companies are doing so even within the same industry. In addition, not all parts of Japan depend on migrants to the same degree.

How is labor migration occurring in Japan? This dissertation interrogates this issue by looking at the case of the seafood processing industry. The seafood processing industry presents an important case to explore. First of all, taking advantage of the FTTIP, this industry is now among the most migrant-dependent industries in Japan, both in absolute and relative terms. As will be shown later, the food processing industry ranks second, following the apparel and textile industries, in terms of the number of migrants received through the FTTIP. Within the food processing, in addition, the seafood processing is the single largest industry that introduces migrants. Because of this, furthermore, the national proportion of migrants is also high in this industry, counting far more than double compared to the entire proportion of foreigners

in Japan. To be sure, at the most general level, it may not be so surprising that the seafood processing is more dependent upon migrants than other industries. Reflecting the low-paid and low-skilled nature of the job, the food processing industry is one paradigmatic case of a migrant-hiring industry across time and place.¹⁰ Thus, one could surely say that a conventional pattern of labor migration is solely repeating itself in Japan.

However, it is very important to note that labor migration into the seafood processing also poses puzzles, at least in the Japanese regulatory context of labor migration. First, not all seafood processing companies seize upon the FTTIP to use migrants. To the contrary, those that use the FTTIP still remain proportionally small (less than 15 percent of all the seafood processing establishments in Japan) (Japanese Ministry of Agriculture, Forestry and Fisheries 2008). In addition, although seafood processing migrants are now found in various places of Japan, these places are not dependent upon migrants to the same degree. Rather, as shown in more detail later in this chapter, the proportion of these migrants also varies geographically. Thus, whereas some places show a relatively high proportion of migrants in the local seafood processing labor force, others do not.

In a nutshell, whereas seafood processing has now emerged among the largest employers of migrants in Japan, the demand for migrants is still nationally small within the industry, and varies by geographic site. Given this, rather than concluding

¹⁰ The evidence abounds, including, for example, early 20th-century Chicago (Taylor 1932), California in the first half of the last century (Ruíz 1987), an economically resuscitating Germany in the postwar period (Castles and Miller 1993), and contemporary Britain (Scott 2013) as well as the United States (Griffith 2006; Marrow 2011; Ribas 2012).

that migrants increase in the seafood processing industry simply because this industry needs them, we need to ask: What are the seafood processing sites that have a high proportion of migrants in their labor force, and why? Through the investigation of this issue, this dissertation seeks to understand the way labor migration plays out at the bottom of the labor market in Japan. It addresses this issue against the backdrop of the growing impetus and prevalence of global labor migration.

Throughout this study, this dissertation makes two arguments. First, I argue that migrants are more likely to be incorporated into, and therefore show a relatively high concentration in, seafood processing sites that have gone through what I call “petite industrialization.” In other words, while seafood processing may generally be a competitive or backward sector of the economy, where companies that use migrants (as well as those that do not) are small or medium in size, the demand for migrants is more likely to arise where the local seafood processing sector has developed a more industrialized production system. The demand for migrants is small and differs locally since seafood processing sites that have been petite-industrialized are proportionally limited. Second, I also argue that petite industrialization matters since an imperative of mass production necessitates a stable input of labor for an intensive work. Trainees and technical interns represent a preferred labor force, as they offer stable labor on a year-round basis, albeit on a “temporary” period of three years. Through this analysis, this dissertation maintains that the concentration of migrants in the petite-industrialized seafood processing sector indicates the way this industry has adapted to Japan’s labor migration policy as an opportunity structure of labor migration.

The next section provides a review of the literature concerning international migration, suggesting how previous theories, though insightful, are insufficient in understanding the way labor migration occurs in the Japanese seafood processing industry. The section that follows offers a broad overview of the FTTIP as well as a more detailed description, with statistical data, of the above-noted puzzles concerning labor migration into the seafood processing industry. The following section presents the main argument of the dissertation, which is followed by a discussion of the methodology and organization of the dissertation.

What We Know About International Labor Migration: A Review of Literature

Whereas labor migration is occurring in the Japanese seafood processing industry principally through a channel presented by the FTTIP, the overall demand for migrants remains small, as the vast majority of seafood processing companies have dispensed with migrants. Moreover, labor migration is occurring in uneven ways, since certain seafood processing sites bring in and employ a relatively large number of migrants while others do not. But why? These empirical facts pose an intellectual puzzle for the dominant literature concerning international migration.

Consider, first, the literature on labor migration. Witnessing a large inflow of postwar migrants into Western countries, particularly the United States, the dominant literature on labor migration has theorized how the labor market of the modern advanced economies creates the demand for migrants.¹¹ Especially influential in this

¹¹ Yet this does not mean that the literature has focused on the host economy's labor market as the sole determinant of international labor migration. International migration

line of research is the dual labor market theory and its variants (Piore 1979; Portes and Walton 1981; Sassen 1988). Rather than seeing labor migration as a function of the business cycle of the macro economy, as earlier generations of the research often did (e.g. Lewis 1954; Todaro 1976), this line of research treats labor migration as a structural phenomenon of the modern advanced economy. This means that the chronic demand for migrant labor exists in the host society's economy, and labor migration occurs relatively independently of the economic conditions of the host society. For instance, Piore (1979), a leading proponent of the dual labor market, argues that the advanced economy necessarily contains an area that he calls the secondary sector, where small and medium competitive companies operate under uncertain and unstable product demands. The secondary labor market develops in this sector, which is marked by low pay, a labor intensive production process, unstable employment, and little prospect for promotion. These characteristics make it difficult to secure native-born workers, which, the theory argues, necessitates and generates labor migration into advanced industrial economies. Portes and Walton (1981) advance this theory, taking into account of the impact of global economic competition. Unlike large companies that deal with this competition by relocating plants abroad or advancing automation, smaller ones do not possess sufficient resources or information to do so. This drives them to take an alternative strategy, the reduction of labor costs through the employment of migrants.

is necessarily complex phenomenon, involving factors in both sending and receiving countries, and intervening factors between them (Lee 1966). A superb review of general theories of international migration is found in Massey et al. (1998). The point here is that labor market of host economy has been treated as one major determinant that shapes labor migration.

At the first glance, Japan's labor migration under the FTTIP does not overtly contradict from this model. Japanese scholarly, as well as popular, discourses often echo the predictions of dual labor market theory in explaining the demand for migrants. For instance, they maintain: "trainees and technical interns are being introduced where the productivity is low and the employment of the Japanese is difficult among small- and medium-sized companies..." (Kamibayashi 2002: 92), or "most technical interns are ... concentrated in such occupations as apparel, construction, food processing, and seafood processing, which are low-paid and mostly "3K,"¹² and have difficulty in recruiting the Japanese" (Kajita 2002: 31).

The Japanese seafood processing industry particularly embodies the character of the secondary sector and labor market. The market structure is characterized by the aggregation of small and medium competitive companies, the operation of which is, in many cases, influenced by the nature of local fisheries. Moreover, under the double forces involving the national economic stagnation and the global economic competition (that is, the growing volume of imported seafood) (Iwasa 2004), coupled with the trend of the "going away from fish" (*sakana banare*) of the consumer tastes,¹³ domestic businesses has shown a consistent sign of decline since 1990s, resulting in a 23 percent loss of business establishments and a 19 percent loss of employment between 1991 and 2012 (Figure 1.2).

¹² 3K is a popular term in Japan, which means *kitsui* (demanding), *kitanai* (dirty), and *kiken* (dangerous).

¹³ In 2006, the per-capita consumption of meat surpassed that of seafood for the first time in Japan (Fisheries Agency 2010).

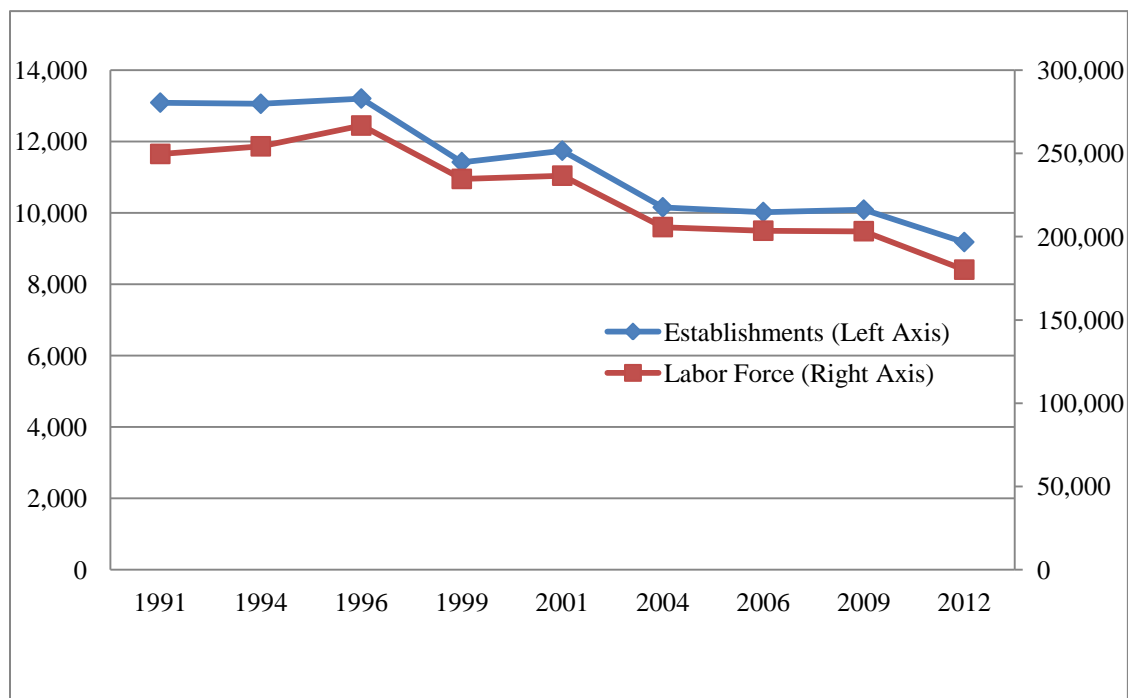


Figure 1.2: Number of Seafood Processing Establishments and Labor Force, 1991-2012. Source: Created by the author from data taken from the Japanese Ministry of Economy, Trade and Industry (1991, 1994, 1996, 1999, 2001, 2004, 2006), and the Japanese Ministry of Economy, Trade and Industry (2009, 2012)

The labor market of this industry also shares many characteristics with the secondary labor market. Wages are low, employment is unstable, production processes are labor-intensive, and the prospects for promotion are limited. Because of these job characteristics, this industry has hitherto relied upon a specific type of native-born individuals as production workers. These are often housewives who work on a “part-time” status (*shufu pāto*) (although this does not always mean that they work on a truly part-time basis¹⁴). According to the 2009 Economic Census (Japanese Ministry

¹⁴ This is because the Japanese definition of “part-time” employment does not always refer to hours worked. Rather, it signifies an employment status. Therefore, although

of Economy, Trade and Industry 2009), about 63 percent of the total seafood processing labor force is female. Moreover, women constitute 83 percent of the work force among “non-regular employees” (*seishain/seishokuin igai*) who are employed on a “non-part-time” basis (*jōyō koyōsha*).¹⁵

Thus, the dual labor market theory provides useful guidance as to why the migrant population is increasing in the Japanese seafood processing sector - to the extent that this industry now represents one of the most migrant-dependent industries. However, this theory faces a challenge when faced with another empirical fact of labor migration into the Japanese seafood processing industry. Namely, within this industry, the vast majority of companies have not yet chosen to take advantage of the FTTIP. Rather, it is actually only a small percentage of them that use this program to bring in migrants. Seafood processing work certainly offers a typical example of the secondary labor market job, embodying the type of “work that natives do not want.” If so, then, why are more migrants not present in this industry? To be more precise, why do more companies not use the FTTIP to bring in migrants? This is not to say that the dual labor market theory is wrong. Rather, I argue that it is incomplete for understanding the case at hand. Whereas the dual labor market theory is useful for understanding why the Japanese seafood processing industry may want migrants, it does not offer a clear account concerning why it may not want more migrants. Although, through the use of

“part-time” workers may work as long as their “full-time” counterparts, their “part-time” status requires them to work for lower wages with a contingent work status, often without social insurance.

¹⁵ The use of *shufu pāto* is not limited to the seafood processing industry. Despite growing academic and popular interest in the increase of irregular employment among young people in the Japanese labor market today, *shufu pāto* still constitutes the largest group of irregular employees in Japan (Honda 2010).

the FTTIP, the seafood processing industry is now among the largest employers of migrants in Japan in comparison with other industries, the proportion of migrant-using companies still remains small within this industry. In order to reveal how labor migration plays out in the seafood processing industry under the Japanese regulatory context of migration, therefore, understanding why more migrants are not present is crucial.

Labor migration in the Japanese seafood processing industry also poses another puzzle to the dual labor market theory. Because this theory and its variants mainly focus on why labor migration occurs at the national level, they pay insufficient attention to a domestic variation of labor migration. To the extent that the domestic variation is concerned in the theory, it tends to focus on large metropolitan areas, or global cities (Sassen 1988). In the case of the Japanese seafood processing, however, the businesses that show the highest proportion of migrants in their work force are not necessarily located in large urban centers. Under the regulatory context of the FTTIP, it is seafood processing sites located somewhere else that show a high proportion of migrants in their labor force. This fact begs a question; what type of seafood processing sites utilize a high proportion of migrant labor in Japan, and why?

Second, labor migration into the Japanese seafood processing industry is also puzzling in the context of the literature on immigration policymaking. Being a relatively new field of research that has started to burgeon since the mid-1990s (Bonjour 2011), this literature explicitly recognizes the impact of political forces on the flow of labor migration, which the labor migration literature often fails to

analyze.¹⁶ Based on this recognition, the literature on immigration policy analyzes how and why a particular outcome of immigration policy is produced. While initially focusing on the issue of – as Joppke (1998) aptly summarizes – “why liberal states accept unwanted immigration” with an expansive immigration policy in the West,¹⁷ the more recent development of the literature, turning around the question, has also endeavored to look at why East Asia, Japan in particular, accepts so few migrants. Conceptualizing Japan as a “negative case” among economically developed countries, for instance, Bartram (2000, 2005) suggests that Japan’s exceptional status can be traced to the decision of the government to not authorize large scale labor migration during an era of the high economic growth, which was made possible by the relatively high autonomy that bureaucrats enjoy in the Japanese political system. On the other hand, Seol and Skrentny (2009) attribute the low presence of migrants in today’s Japan and East Asian in general to the lack of family reunification clauses in migration policies. They argue that this lack may reflect East Asia’s political culture, which prioritizes economic growth over migrants’ human rights.

¹⁶ This is not to say that the literature of labor migration dismisses the role of the state policy altogether. In this literature, however, the state is thought to exist only for serving business interests in regards to labor migration. See Piore (1979) and Portes and Walton (1981).

¹⁷ Freeman (1995) is perhaps the first who offered a theoretical account for this puzzle, arguing that the client politics, in which businesses and ethnic lobbies exert concentrated demand and pressure on policymakers, explains why immigration policy tends to be expansive. On the other hand, Joppke (1999) questions a universal applicability of client politics, suggesting that, in the case of Germany, the autonomy of state – the decision of an independent court in particular – was a crucial factor in providing ex-guestworkers the right to stay and bring their family. Along the same lines, the study of the Netherlands by Bonjour (2011) maintains that the morals of the bureaucrats and politicians played an important role in authorizing the settlement of migrant workers in the 1960 and 70s, which has resulted in the subsequent growth of the migrant population in the country.

The literature on immigration policy is undoubtedly important in understanding the causes of restrictive immigration policies in Japan, which has produced little immigration to the country. It is also true, however, that the literature's main focus on why the relative size of migrants is so low in Japan neglects the issue of the real increase of labor migrants in Japan. Whereas Japanese immigration policies are different than those of Western countries, under these policies, Japan also has a specific (*de facto*) labor migration policy. Whereas labor migrants are increasing in the seafood processing industry under the FTTIP, an overall demand for migrant still remains small. In addition, while labor migration is primarily a large urban phenomenon under expansive immigration policies in Western societies, labor migration into the Japanese seafood processing does not follow this pattern. Labor migrants are more geographically dispersed across seafood processing sites in Japan, but, at the same time, they also tend to show high concentration in certain sites, but not in others. These puzzles lead us to wonder how then labor migration is specifically occurring in Japan.

The FTTIP and Migration into the Seafood Processing Industry

In order to better understand how labor migration is occurring at the bottom of the Japanese labor market, this section first provides a broad overview of the FTTIP. It then goes on to elaborate the theoretical puzzles that labor migration into the seafood processing industry poses with statistical data.

A Brief Overview of the FTTIP

Japan International Training Cooperation Organization (hereafter, JITCO)¹⁸ claims that the purpose of the FTTIP is to receive workers from abroad for a certain period, and have them acquire techniques, skills and knowledge of Japanese industries and businesses, thereby cultivating human resources for economic development and industrial promotion in their home countries. To date, however, quite a number of journalist accounts and academic studies have casted doubt on the credibility of this official aim, suggesting, and often criticizing, the true reason for the program: a *de facto* means for Japanese businesses to secure low-skilled migrant labor (Hamaguchi 2012; Hashimoto 2010; Kajita 1994; Kamibayashi 2009; Komai 1999; Murakami 2010; Suzuki 2006; Yasuda 2010). This has become such common knowledge today that, for instance, the government does not hesitate to conceal its intent to expand the number of technical interns in the construction industry, in anticipation of coming labor needs in the reconstruction of areas affected by the Great East Japan Earthquake in 2011 and the construction boom caused by the Tokyo Olympic in 2020 (Jiji Tsushin 2014).

The basic framework of today's FTTIP was established in the 1990s. Although closely connected in the current framework, the FTTIP actually refers to two separate programs: the Foreign Trainee Program, and the Technical Intern Program. The Foreign Trainee Program has a long history, whose origin dates back to the late 1950s. Unlike today's Trainee Program, in which the majority of trainees are

¹⁸ JITCO is an organization jointly established in 1991 by the Ministry of Justice, Ministry of Labor, Ministry of Foreign Affairs, and Ministry of International Trade and Industry. Its official purpose is to provide assistance and guidance for companies using or planning to use the FTTIP.

introduced into small- and medium-sized firms, the previous manifestation of the program was more often used for inviting foreign governmental officials, local employees of a foreign subsidiary of Japanese companies, or employees of foreign companies doing business with Japanese companies (Kamibayashi 2009; Ochiai 1974).¹⁹ In 1990, this program went through a major revision, which established a formal channel to facilitate the introduction of trainees by small and medium companies.

The timing of this revision is important. In the previous year, in the middle of an unprecedented economic boom now called the bubble economy, the Diet passed the revised Immigration Control and Refugee Recognition Act (ICRRA) (implemented in 1990). In this law, the government reconfirmed its stance on non reception of low-skilled migrants, while also implementing employer sanctions on those who employ illegal migrants.²⁰ In the midst of a severe labor shortage caused by the economic boom, not surprisingly, this revision did little to solve the labor problems for many employers, especially those of small and medium companies. After this revised law was passed in the Diet, these employers petitioned locally elected members of the

¹⁹ That being said, it should be noted that the use of trainees as *de facto* migrant labor was already observed in the 1960s and 70s, which was a period of high economic growth in Japan (Ochiai 1974). In tandem with the growth of such trainees, public discourses such as “human importation under the name of technical training” or “workers called trainees” also appeared in the early 1970s (Akashi 2010). In this sense, it is not entirely correct that Japan did not receive any migrant workers during this period. Although the number of these migrants was numerically limited, reaching a few thousand workers a year, these trainees offer an early example of *de facto* migrant workers in Japan.

²⁰ Nevertheless, this law also opened the door for the other *de facto* labor migration besides the FTTIP: the reception of *Nikkeijin* workers. See Akashi (2010), Fukuda (2002), and Hamaguchi (2012) for detailed discussions on the policymaking process.

ruling party (Akashi 2010; Koike 1996), who then pushed ministries in charge of immigration and labor migration policy, the Ministry of Justice in particular (Kuwahara 2002). Thus, only two months after the revised law was implemented, the Justice Ministry suddenly made ministerial announcements, which created an official channel to enable small and medium companies to receive trainees. But the revision of the Trainee Program did not entirely appease the business demand for migrants. In 1993, the government again announced the creation of a new program – the Technical Intern Program – that virtually allowed businesses to keep trainees one more year after the trainee period under the name of technical internship.²¹ In 1997, the period of the technical internship was further extended to two years.²² At this point, one main feature of today’s FTTIP – the use of migrants for three years – was established.

Let me take a look at the regulatory aspect of the FTTIP. There are mainly three channels through which trainees are received under the FTTIP: (1) the reception by governmental or government-related organizations, (2) the “single corporate type” (*kigyō tandoku gata*), in which (typically large) companies receive migrants from their subsidiary abroad, or companies with which they have business transactions, and (3) the “group management type” (*dantai kanri gata*), in which small- and medium-sized companies receive migrants. The establishment of the third channel led to the growth

²¹ For a more detailed discussion on negotiations and interactions between ministries, politicians, and business groups, as well as within ministries, behind the establishment of the FTTIP, see Akashi (2010), Koike (1996), Kuwahara (2002), and Hamaguchi (2012).

²² It is not entirely clear how and why this happened. But it should be noted that, in the early 2000s, a bribery scandal involving KSD, a mutual-aid organization for small and medium-scale businesses, revealed that a founder of KSD was asking a politician of the ruling party to raise questions in the Diet to induce the extension of the Technical Intern Program.

of trainees in Japan, as will be shown below. In the third channel, a representative business group of small and medium companies (e.g. local cooperative associations or chambers of commerce) serve as “primary (receiving) organizations” (*daiichiji (ukeire) kikan*) that are primarily responsible for the local administration of the program. Companies that actually receive trainees are designated as “secondary organizations” (*dainiji kikan*). The number of trainees one company can introduce depends on the size of native-born employee population. Thus, in the group management type, companies that have below 50 native-born employees are allowed to introduce up to 3 new trainees a year, those companies with less than 100 employees up to 6, those with less than 200 employees up to 10, and those below 300 up to 15. Trainees are not legally recognized as workers, so they are provided a monthly “trainee allowance,” which is usually below the minimum wage, outside of the cost of food and housing.²³ Under the current regulations, at least 1/12 of the first year must be spent for the off-the-job training.

There has been remarkable growth of trainees in the group management type, over the last twenty years. Although the acceptance of trainees by governmental organizations was greatest in the early 1990s, in 1995, for the first time, the total number of trainees received through the other two private channels (the single corporate type and the group management type) surpassed the number of trainees received by the governmental channel. Moreover, the group management type

²³ In 2006, the average amount of the monthly trainee allowance was about 65 thousand yen (\$1 is about ¥100), which is significantly below the full-time minimum wage of the same year (118 thousand yen). This amount has shown a consistent decline since the late 1990s. See Appendix A for the change in the average amount of trainee allowance as well as the amount of wage planned to pay to technical interns.

surpassed the single corporate type in the number of trainees in 1998, and since then, it has been the largest receiving channel for trainees (Figure 1.3). There was a notable drop in the number of trainees in the group management type in the late 2000s, which was perhaps due to the world-wide economic recession.

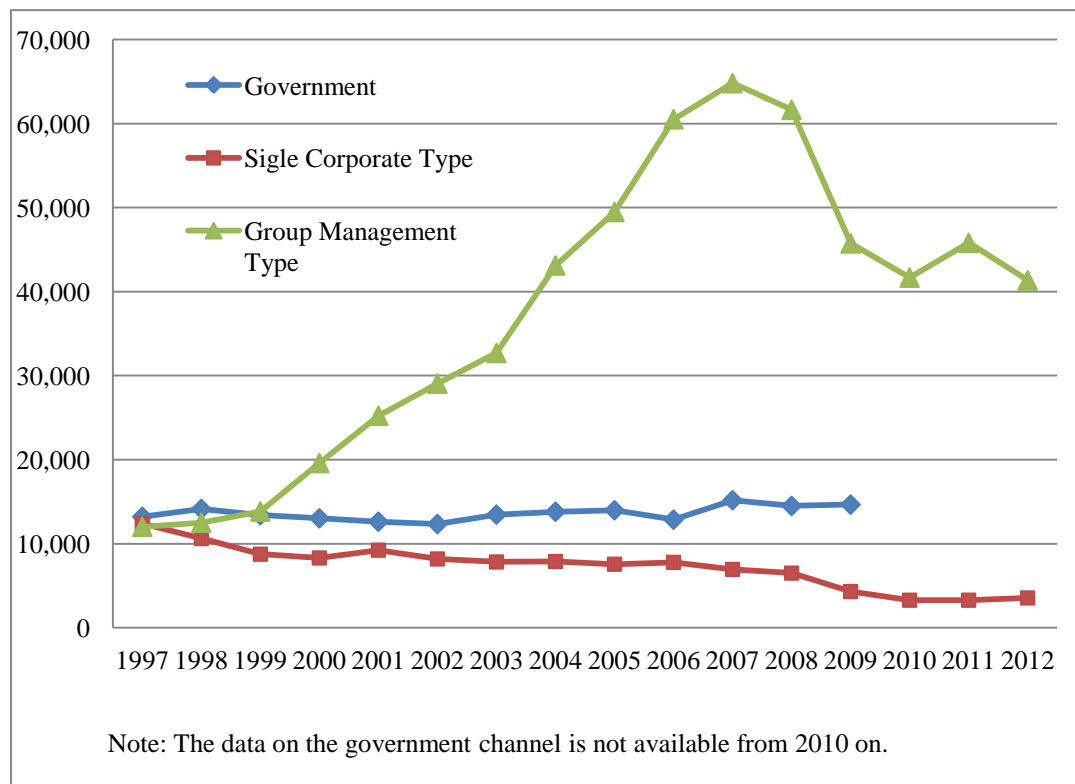


Figure 1.3: Number of Trainees by Receiving Channel, 1997-2012. Source: Created by the author from data from JITCO (2000-2012) and Shugiin Chosakyoku Homu Chosashitsu (2008)

After one year of the trainee period, trainees apply for technical internships. Upon passing the skill examination, they upgrade their status to be technical interns.²⁴

²⁴ The passing rate of this examination is very high. For example, while there were a

The biggest difference as compared with trainees is that, though their visa status does not designate them as workers (as in the case of trainees), technical interns are covered by labor laws. Thus, for instance, minimum wage is guaranteed, and overtime work is also allowed with higher pay.

Importantly, not all trainees are eligible for applying for the internship. Occupations that they perform must be designated for the internship. When the Technical Intern Program was established in 1993, there were 17 possible occupations. The range of these occupations has gradually been expanded to include 66 occupations in 2010. The seafood processing industry had only one occupation that was explicitly relevant for the qualification of the technical internship during the 1990s: pasted seafood products. Two occupations were added in 2000: (1) heated seafood products, and (2) unheated seafood products.²⁵ The addition of these two seafood processing occupations contributed to the growth of migrants in the seafood industry during 2000s, as shown below. The growth of trainees who applied for a technical internship shows a

total of 63,747 applicants for the technical internship in 2008, 63,485 of them actually took the exam. Of those 63,485 examinees, 63,394 of them passed the exam (JITCO 2009). Thus, 99.5 percent of the original applicants successfully advanced to be technical interns (63,394/63,747).

²⁵ It is not entirely known why the government decided to include these two occupations at this period. Yet, it is plausible that there was some sort of business lobbying or petition that had at least some influence on the government's decision. Clear evidence of this can be found in the Second Basic Plan for Immigration Control, published by the Ministry of Justice in 2000, which stated that: "... regarding occupations designated for the technical internship, while they have been gradually expanded to date, even today, there is a demand for further expansion of occupations in, for instance, the agriculture, seafood processing, and hotel industries. From now on, we will consider the way through which we can smoothly and promptly deal with the request from receiving organizations and trainees ... by cooperating with relevant ministries and agencies" (Japanese Ministry of Justice 2000). Interestingly, unlike the seafood processing and agriculture sectors, the hotel industry has not been authorized for the use of technical interns thus far.

close parallel with that of trainees accepted through the group management type (Figure 1.4).

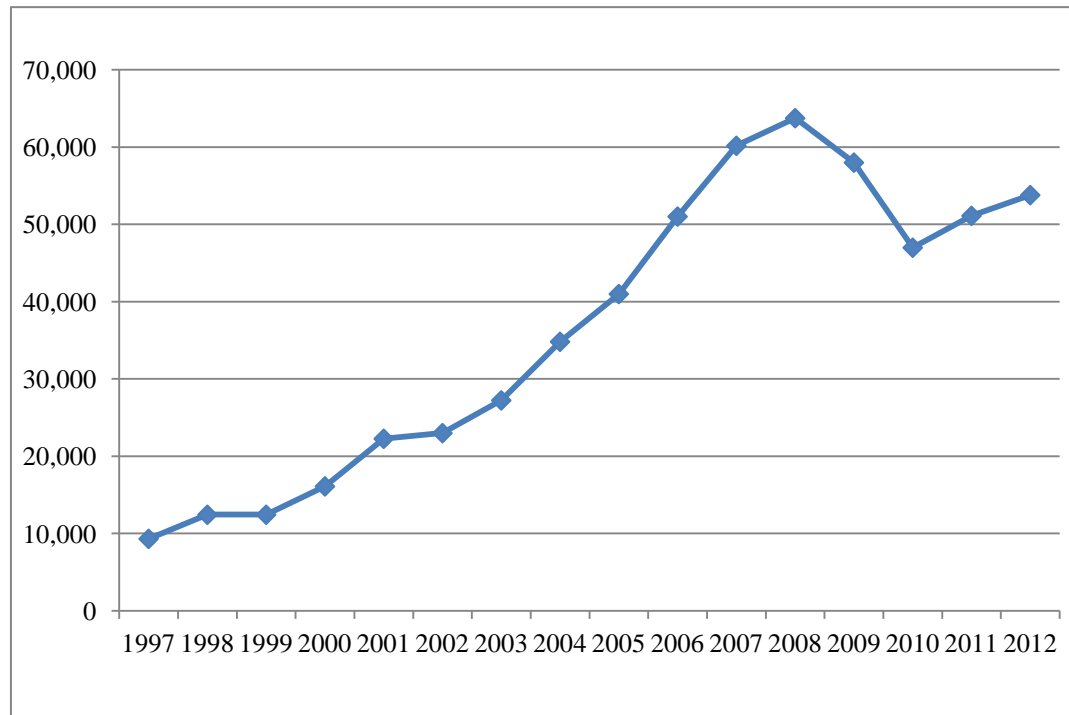


Figure 1.4: Number of Applicants for the Technical Internship, 1997-2012. Source: Created by the author from JITCO (2000-2012)

The FTTIP had an important policy reform in 2009 (implemented in 2010). During the decade leading up to this change, the severely bad living and working conditions endured by some trainees and technical interns became known to the public, including such practices as the confiscation of passports, the forced deposit of wages, and unpaid overtime work. These incidents also invited national and international

criticism.²⁶ In the context of these growing concerns and critiques, the government made several revisions to the FTTIP. Among several measures established for protecting migrants' rights, especially noteworthy is the abolition of the Trainee Program and the application of labor laws to migrants for the entire period of stay. Under the new regulations, migrants are introduced as technical interns from the first year, are covered by labor laws, and are also guaranteed a minimum wage.²⁷

What industries use the FTTIP? The top five industries, in terms of the number of trainees accepted in 2010, include apparel and textiles, food processing, agriculture, transport equipment, and fabricated metal products (see Figure 1.5, which shows the number of trainees in these industries from 1997 to 2011). The food processing industry ranks second in the number of trainees present in it, after the apparel and textile sector. Within the food processing sector, the seafood processing industry stands out. Although the data provided by JITCO does not allow us to see the distribution of trainees by subsectors within the food processing industry, the saliency of seafood processing can be discerned by looking at how many food processing trainees apply for seafood processing technical internships. Figure 1.6, which indicates the number of applicants for technical internships within the food processing sector, shows the increase of food processing trainees during the 2000s. This was primarily

²⁶ For instance, the 2007 Trafficking in Persons Report, published by the U.S. Department of State, made reference to the Foreign Trainee Program, suggesting that trainee migrants are put under the conditions of forced labor (U.S. Department of State 2007).

²⁷ Technically speaking, the Foreign Trainee Program no longer applies to the seafood processing companies involved in this study. But a good part of this dissertation deals with the FTTIP prior to this policy change. For the sake of consistency of the terminology, thus, I employ the term FTTIP throughout this dissertation.

led by the increase of trainees needed for work in two seafood processing jobs. Combined with trainees for the pasted seafood production, in 2010, three seafood processing occupations accounted for three quarters of the applicants within the food processing sector.²⁸

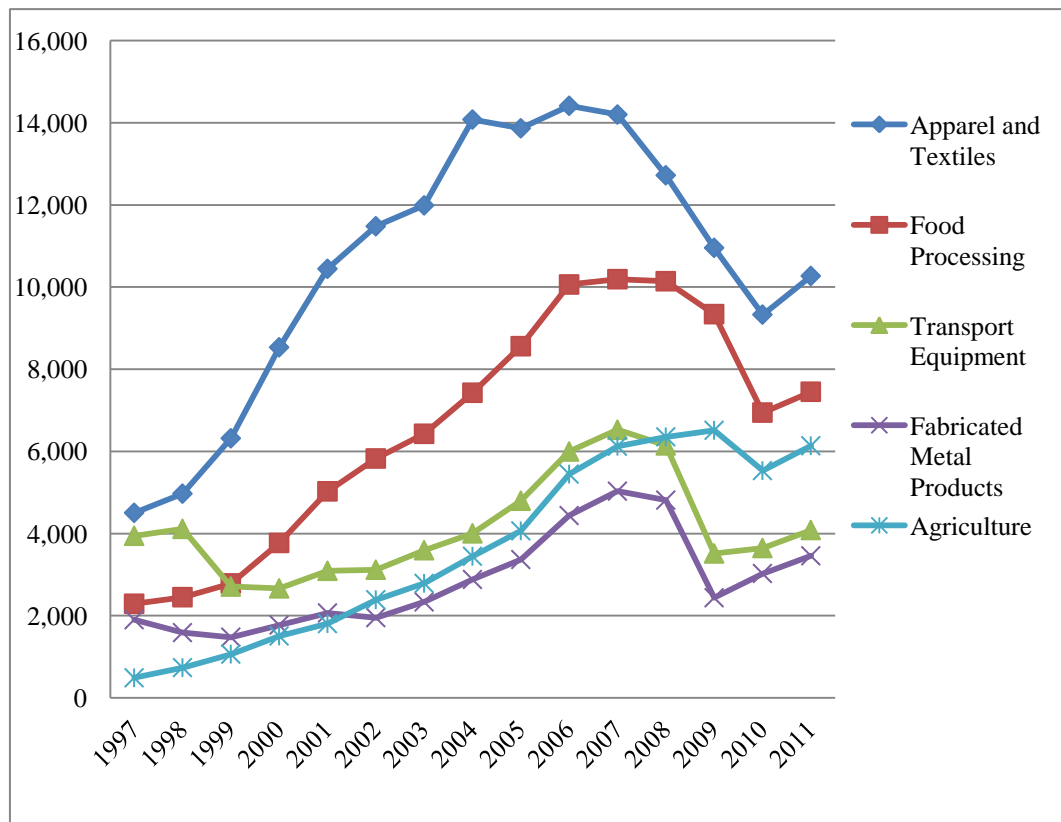


Figure 1.5: Number of Trainees by Industry, 1997-2011. Source: Created by the author from JITCO (2000-2012) and Shugiin Chosakyoku Homu Chosashitsu (2008)

²⁸ A part of the reason why applicants for unheated and heated seafood jobs dropped in 2011 may be because of the East Japan Great Earthquake of the same year, which hit several notable seafood processing sites in Japan.

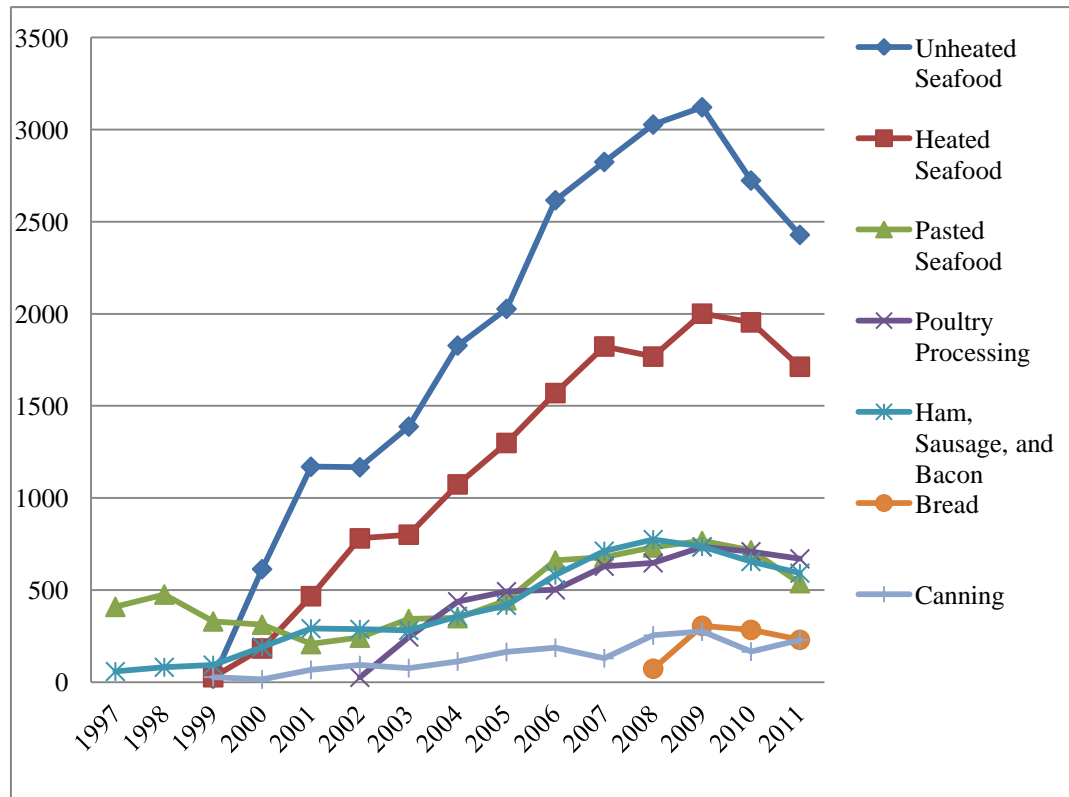


Figure 1.6: Number of Applicants for the Technical Internship in Food Processing, 1997-2011. Source: Created by the author from JITCO (2000-2012)

Overall, the vast majority of trainees and technical interns are from Asian countries, especially China. According to JITCO, for instance, about 82 percent of trainees were Chinese in 2010 (JITCO 2000-2012). They tended to be young, with those in their 20s constituting well over half of all trainees. As for the gender composition, women constituted over half of all trainees, which is a trend that has been consistent since 1999 (Kamibayashi 2009). Perhaps this has something to do with the fact that apparel and textiles, and food processing – two industries that have traditionally used a (native-born) female labor force – are the two biggest industries

that introduce migrant workers (Kamibayashi 2009).

Migration into the Seafood Processing Industry

Workers in the seafood processing industry numbered about 203,000 in 2009 (Japanese Ministry of Economy, Trade and Industry 2009). For this reason, this industry represents one of the largest food processing sectors in the fish-eating country of Japan.²⁹ As overviewed above, it is also one major industry that brings a large number of migrants into the country under the FTTIP.

Previously, the fact that trainees and technical interns were being introduced into the seafood processing sector was not necessarily widely recognized - even among the Japanese general public. Perhaps one important incident that drew national attention to these migrants was the Great East Japan Earthquake and the giant tsunami that followed. These events caused a tremendous damage to coastal areas of the northeastern Japan. National newspaper coverage reported that Chinese evacuees were working as trainees or technical interns at local seafood processing companies (Huruki et al. 2011; Nishimura 2011b; Numata 2011). The most dramatic event reported on involved an executive of a local seafood processing company who lost his life after he saved his Chinese employees (Nishimura 2011a; Yoshioka 2011). These reports made the general public aware of the reality of the seafood processing industry which has relied on a significant number of trainees and technical intern migrants in its workforce.

²⁹ It is reported that the Japanese take 40 percent of animal protein from seafood (Iwasa 2004).

It is not only the absolute size of the migrant population that matters in the seafood processing industry, moreover. The relative size of migrants in this industry is also large as compared with other industries in Japan. The 2008 Census of Fisheries (Japanese Ministry of Agriculture, Forestry and Fisheries 2008) provides useful information in this regard, reporting the number of both native and migrant workers.³⁰ While this dataset is limited by the fact that it does not count trainees, it does include the number of technical interns. Even given this limitation, the dataset counts over 11 thousand migrants employed in the seafood processing in Japan in 2008. This figure amounts to approximately 5.5 percent of the total national seafood processing labor force. With trainees included, the potential percentage would surely be higher.³¹ Given that the overall percentage of foreigners is less than two percent in Japan in the same year, seafood processing is indeed one of the most migrant-dependent industries in Japan.

Although it can be said that the seafood processing industry now relies heavily on migrants in comparison with other industries, this does not mean that the employment of migrants is a norm within the industry. To the contrary, seafood processing companies that use migrants are rather limited. The data from the 2008 Census of Fisheries reveals that, among all the seafood processing establishments, only

³⁰ The Census of Fisheries is a quinquennial census. It reported the number of migrants in the seafood processing industry for the first time in 2008.

³¹ While the Census of Fisheries includes all migrants (other than trainees), it is expected that the vast majority of these migrants are actually technical interns (the reason for this estimation will be detailed in the next chapter). Since the technical internship is a two-year program that occurs after one year of the trainee program, the actual number of migrants in the seafood processing is estimated to be about 1.5 times larger than the figure reported in the data.

14 percent of them actually have migrants in their labor force (Japanese Ministry of Agriculture, Forestry and Fisheries 2008). Certainly, one may claim that this figure is indeed high, comparing it with the average percentage of business establishments of the entire manufacturing that have migrants, which counted 6 percent in 2009.³² It is important to point out, however, that one important feature of labor migration in the Japanese seafood processing is that, in the vast majority of cases, seafood companies introduce migrants with the use of the FTTIP. Nevertheless, the fact that 14 percent of seafood processing establishments have migrants means that the vast majority of companies do not actually have migrants in their workforce.

Moreover, there is also a significant geographic difference in the extent to which the local seafood processing industry utilizes migrant labor. Reflecting the nature of the FTTIP, under which migrants are brought to companies upon the request of employers, trainee and technical intern migrants tend to be dispersed various regions of Japan (Iguchi 2012). Nevertheless, this does not mean that these migrants are uniformly dispersed in proportion to the local size of the seafood processing industry. To the contrary, there is a significant difference in the extent to which the local seafood processing industry uses migrants, producing a varying proportion of migrants in the local seafood processing labor force. See Figure 1.7 for an illustration, which shows the percentage of migrants in the entire seafood processing labor force by prefecture. Among 47 prefectures in Japan, 18 of them have less than half of the national average (5.46 percent) in terms of the percentage of migrants in the seafood

³² This figure is calculated using data from the Japanese Ministry of Economy, Trade and Industry (2009), and the Japanese Ministry of Health, Labour and Welfare (2009).

processing labor force. On the other hand, 4 of them have over double the national average. Clearly, the degree in the dependence upon migrant labor force differs by localities.³³

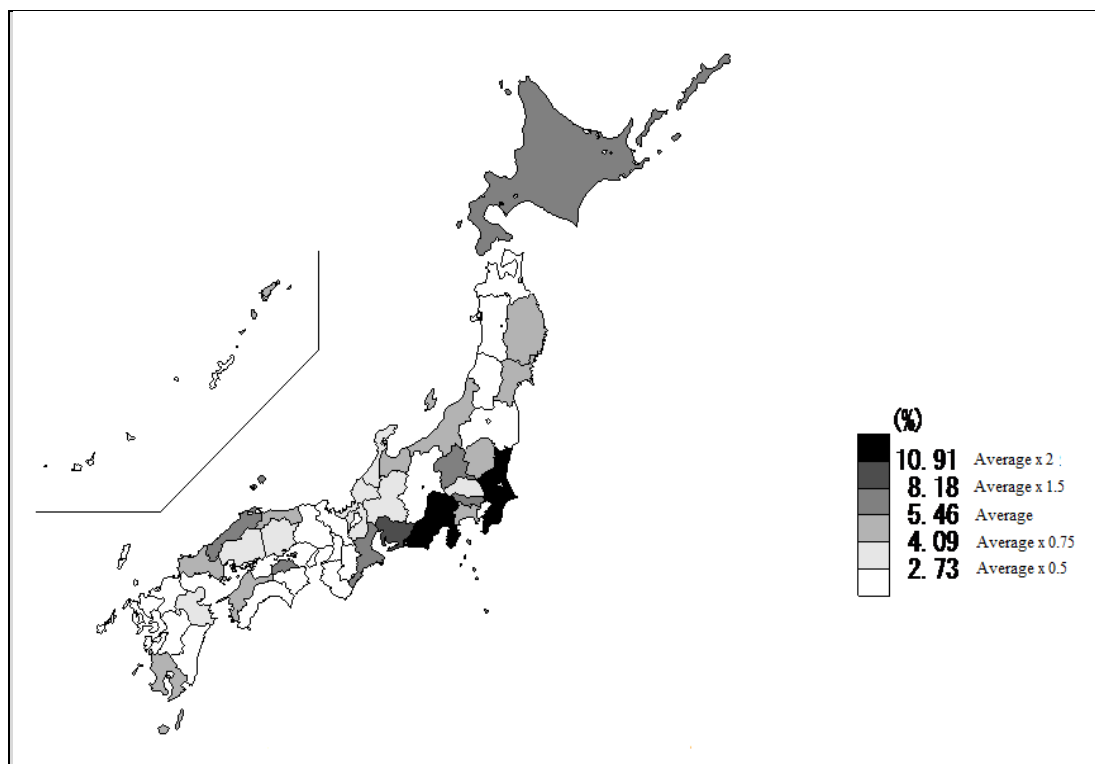


Figure 1.7: Percentage of Migrants in the Seafood Processing by Prefecture, 2008.
Source: Created by the author from data from the Japanese Ministry of Agriculture, Forestry and Fisheries (2008)

With the use of the FTTIP, seafood processing emerged as one of the most migrant-dependent industries during the last decade in Japan. Upon closer look, however, the demand for migrants is small nationally, and also varies according to

³³ It should also be noted that the different percentage of migrants in the seafood processing labor force does not appear to correspond to the percentage of foreigners in each prefecture. See Appendix B for the percentage of foreigners by prefecture.

geographic location. Therefore, before hastening to declare that the demand for labor migrants in the seafood processing represents a “structural” feature of the Japanese economy, we need to carefully investigate which seafood processing sites introduce migrants, and why.

Understanding Labor Migration in the Seafood Processing Industry: Petite Industrialization, and Labor Migration Policy as an Opportunity Structure

Why is the demand for migrants small, and also geographically varied? In order to better understand this issue, it is necessary to consider the type of seafood processing sites that are more likely to use migrant labor, and why they do so. To answer these questions, this dissertation makes two arguments. The first argument speaks to the type of the seafood processing sites that use migrants. The second describes the mechanism by which these sites necessitate migrants under the FTTIP.

Petite Industrialization

First, this dissertation argues that migrants are more likely to be incorporated into areas in which the local seafood processing industry has gone through what I call “petite industrialization.” The term “petite industrialization” conveys ideas central to understanding the character of the seafood processing industry that draws on migrant labor. First, “industrialization” is a key concept for understanding the demand for migrants since, as I show in subsequent chapters, the seafood processing sites that have developed a more mass-production-oriented mode of production are more likely to create a large demand for migrants. Second, the degree of this “industrialization” is

limited, and thus “petite,” especially compared with the imagery this term conventionally invokes (such as the establishment of a large scale, capital-intensive production system, as often seen in large, oligopolistic companies). This is due to the fact that, reflecting the market structure of the industry, industrialization in the seafood processing is an endeavor usually undertaken by small- and medium-sized companies. This dissertation argues that those seafood processing sites that have gone through petite industrialization are more likely to have a demand for migrant labor.

This outcome has an important implication for the labor migration literature. The literature suggests that labor migrants are more likely to be incorporated into the secondary sector of the economy, where wages are low, the production process are primitive and labor intensive, and working conditions are not pleasant. In such factories, business owners have a chronic struggle attracting native-born workers. Broadly speaking, the Japanese seafood processing industry fits this model. Japanese seafood processing companies tend to be small- or medium-sized, the production process remains labor intensive, and pay is low, especially compared with the large industrial sector. These characteristics of the seafood processing industry thus certainly embody the secondary, or “backward,” sector of the economy, signaling the reason why this industry tends to use more migrant workers than others.

However, the most undeveloped sectors of the seafood processing industry are not the same ones that use the most amount of migrant labor. The degree of industrial development within the industry is not irrelevant in shaping the demand for migrants, either. To the contrary, this dissertation argues that the more industrialized sectors are more likely to use migrant labor within the seafood processing industry.

This outcome helps to explain the two puzzles mentioned above: (1) why is the demand for migrants small nationally, and (2) why is it different geographically? Concerning the first puzzle, I argue that the demand for migrants is small because seafood processing companies that have gone through petite industrialization are numerically limited. The Japanese seafood processing sector has traditionally been a seasonal industry, whose operation is significantly shaped by the character of the local fisheries. While the technological development of the industry has now made year-round operation technically possible, in many cases, the seasonality in the supply of raw materials still influences the production activity of the industry. In addition to this, the growing import of seafood and the general economic stagnation have all contributed to stripping many domestic seafood processing companies of their management vitality, leading the industry into a consistent decline since the 1990s. Under these circumstances, this industrializing strategy, though petite, proves to be a difficult option to pursue for the majority of seafood companies. In other words, companies that have successfully developed petite industrialization are limited, which, I maintain, accounts for the reason why the demand for migrants is limited. The explanation for the first puzzle also accounts for the second puzzle: the demand for migrants is geographically uneven, and tends to be concentrated in certain sites but not in others. I argue that this is because a large demand for migrants is likely to be generated where the local seafood processing has been petite-industrialized overall.

Opportunities and Constraints under the Japanese Immigration Regime

Having suggested the relationship between petite industrialization and the

demand for migrants, the question that logically follows is why it is the case. I argue that this relationship is significantly influenced by the character of the immigration regime in Japan. In order to understand this point, it is useful to conceive of a state immigration/labor migration policy as an opportunity structure that shapes the volume and character of migrant labor. Witnessing an apparently incessant flow of postwar migrants to the United States and other Western societies, the previous literature of labor migration often understood labor migration to be primarily an economic phenomenon. Labor migration does not occur in an economic vacuum, however. As students of immigration policy are acutely aware, policy significantly shapes the nature of labor migration, conditioning – if not perfectly controlling – the size and character of migration. Thus, although this political filtration may result in an expansive migration, both legal and illegal, it is not the entire story; it can have other outcomes.

The purpose here is not to explore how and why political processes work to produce various outcomes in migration policy. Rather, the point here is that, once created, this policy functions as an opportunity structure to exert significant influence on whether and how domestic businesses introduce migrants. In this sense, what is important in understanding labor migration is not so much how business demand for labor translates into labor migration, but more how businesses adapt to labor migration policy as an opportunity structure, in which they are embedded, to (or not to) generate a demand for migrants. In this regard, Japan – an emerging country of labor migration under a distinctive policy of labor migration – offers an interesting case in which to explore this issue.

How has the seafood processing industry adapted to Japan's opportunity structure that provides its own distinctive opportunities and constraints for incorporating labor migrants? Three types of adaptation outcomes are immediately apparent. First, this industry has introduced very few settled migrants, reflecting the absence of an official immigration policy. Second, instead, this industry has mainly taken advantage of trainees and technical interns as an alternative source of migrant labor, which the Japanese opportunity structure presents as one of the few means to supply migrant labor for domestic businesses. Third, under the FTTIP, which makes it possible for businesses to directly bring in migrants, seafood processing companies located in large metropolitan centers are not necessarily the biggest employer of migrants. The demand for migrants is certainly concentrated, but it is concentrated where the local seafood processing is petite-industrialized.

That the demand for migrants is concentrated in petite industrialized seafood processing sites, I argue, is an indication of the fourth adaptation outcome. Despite some discourses, including scholarly ones (Murakami 2010; Suzuki 2006), that suggest that trainees and technical interns are a source of cheap labor, these migrants are not cheap labor for all industries and businesses. Neither are they always convenient. They can be inconvenient and not so cheap for companies in some industries, such as in the seafood processing, in which operations can fluctuate due to seasonality and/or declining product demand, and wages are already set at or near local minimum wage. In this circumstance, the use of migrants through the FTTIP can be more constraining rather than enabling for some businesses. Whether it is constraining or enabling depends on the character of production. I argue that the petite

industrialized seafood processing sites are more likely to create the demand for trainee and technical intern migrants, because the imperative of mass production makes trainee and technical intern migrants a preferable source of labor.

The presence of an industrialized – albeit petite – system of production signals that mass production is a principal strategy of production, which is not always the case for the seafood processing sector, as two types of year-round stability are needed as conditions for this strategy: the demand for products, and the supply of raw materials.³⁴ Under the mass production strategy, cost reduction is attempted through the realization of economies of scale, which “arises when the fixed costs of any operation can be spread among larger units, as a consequence of which the average cost per unit declines” (Waldinger 1986: 22). Certainly, the benefit of economies of scale may be limited in the seafood processing sector, in which the market is a bit more differentiated and corporate resources are more limited, making the production process more labor-intensive. Despite, or because of, the limited capital-intensive production process, the pursuit of the economies of scale has important implications for the labor market strategy. This is because the stable input of a labor force, which is not only cheap but can deal with intensive and repetitive work, becomes an important consideration in making the mass production strategy work in the seafood processing industry.

This consideration leads the petite industrialized seafood processing industry to generate demand for migrants under the FTTIP. In spite of the official aim, as noted

³⁴ Where either or both of these two are uncertain or unstable, investment in fixed capital and plant – a necessary step for establishing an industrialized production system – is likely to be discouraged.

previously, the FTTIP virtually functions in a way that is very similar to a temporary migrant worker program. Yet unlike some temporary migrant worker programs that provide migrant labor on a short-term or seasonal basis, one unique character of the FTTIP is that under an overall restrictive regime of immigration in Japan, the FTTIP allows industries and businesses to utilize migrants on a year-round basis for the total of three years. This character of migrant labor fits well into the production imperative of the petite industrialized seafood processing industry, which necessitates a stable labor force for intensive work but which has a chronic problem with securing said labor force. Thus, while the seafood processing is now one major industry that incorporates migrant labor in Japan, it is not more “backward” – or less advanced – seafood processing sites that are more likely to bring in and use migrants. Rather, under a specific labor migration policy of the FTTIP, the petite industrialized seafood processing sites, which are equipped with more advanced production processes within the industry, are more likely to incorporate migrants.

International migration has gained a growing momentum in the era of global labor migration. However, the business incorporation of migrants does not occur in an economic vacuum. Rather, it is shaped by how businesses and industries adapt to the state opportunity structure of labor migration, in which they are embedded. That labor migration most often occurs in petite industrialized seafood processing areas is the result of the way in which this industry has adapted to the opportunity structure of labor migration in Japan.

Methods and Organization of the Dissertation

In order to explore the way that labor migration occurs in the seafood processing industry in Japan, this dissertation conducts an analysis in the following ways. The next chapter (Chapter 2) offers a statistical regression analysis, looking at what local economic, demographic, and industrial conditions account for the relative demand for migrants in the local seafood processing industry. Of particular interest here is whether and how the degree of the industrialization of the local seafood processing industry matters for generating the demand for migrants. If petite industrialization really matters, then the regression analysis should show a positive association between petite industrialization and the percentage of migrants present in the local seafood processing industry. I address this issue using the productivity of the local seafood processing industry as a proxy for the degree of industrialization. This statistical analysis lends initial credit to the petite industrialization hypothesis, indicating a significantly positive association between productivity and the percentage of migrants in the local seafood processing sector. I show that this association stands even when controlling other variables that tend to be usual-suspects, including the local unemployment rate and the employment share of the seafood processing sector as part of the total local labor force. In order to conduct this statistical analysis, I make use of the original dataset that I created by combining existing official datasets, including the 2008 Census of Fisheries, the 2005 Population Census, and the 2008 Census of Manufacturers. The most crucial data comes from the Census of Fisheries, since it reports the number of both migrants and natives employed in the seafood processing industry at the city/town level. Due to a paucity of systematic, detailed data on migrants in Japan, very few datasets provide this kind of information in the same

depth for other industries.

Following Chapter 2 – that presents quantitative evidence on the relationship between productivity and the percentage of migrants in the local seafood processing industry –, Chapter 3 and 4 offer qualitative analysis in order to better specify the mechanism through which petite industrialization works as a cause for generating the demand for migrants. I employ two kinds of qualitative data for this purpose.

The first is interview research that I conducted with seafood processing companies and business groups (e.g. local seafood processing cooperative associations) in summer of the 2012 in Japan. I did this research in two places: Yamada City and Kawai Town (pseudonyms). These sites are similar in that the seafood processing sector is a major local industry, constituting a significant share of employment in the local labor force (6 percent in Yamada, and 10 percent in Kawai). Local economic conditions are also similar, with the unemployment rate reaching 5 percent in Yamada and 4 percent in Kawai. But they are different in the extent to which the local seafood processing plants use migrants. While the percentage of migrants in Kawai's seafood processing industry is close to the national average of 5.5 percent (according to the 2008 Census of Fisheries), the percentage in Yamada's industry reaches to over triple the national average. The interview research includes a total of 22 respondents. Among them, 5 are officers in seafood processing business groups, and 17 are owners or executives in seafood processing companies. These companies are small or medium in size, with the largest company employing about 100 employees. In the interviews, I asked the respondents about how they evaluate the recent trend in the local seafood processing industry, how they cope with these changes as a business

group or company, and their evaluation of the FTTIP. I also asked owners and executives about the current business state of affairs of their companies, their hiring methods regarding natives, and why they use (or do not use) migrant workers. The second piece of qualitative data comes from published sources (mainly economic or business journals and reports) of the seafood processing industry in Yamada and Kawai. I also refer to a few existing studies on labor migration in the Japanese seafood processing industry.

Chapter 3 and 4 draw upon this qualitative data. Chapter 3 focuses on Yamada City, which has a very high percentage of migrants in the local seafood processing industry. In this chapter, I use the case of Yamada to delve into the relationship between productivity and the percentage of migrants in the local seafood processing industry, which Chapter 2 found to be positively significant. Specifically, I ask whether productivity is primarily a cause or consequence of the presence of migrants. By looking at the development and structural changes within the local seafood processing industry since the 1970s, I show that Yamada's seafood processing industry had already achieved a nationally renowned, highly productive structure of production prior to its introduction of migrant workers. I then go on to analyze how the petite industrialized local structure of production necessitates migrants, focusing on the importance of the imperative of mass production in generating the demand for migrants.

In order to better grasp how labor migration occurs in the Japanese seafood processing sector, it is also necessary to understand how it does not occur. This is the focus of Chapter 4. I investigate the case of Kawai in Chapter 4, where the local

seafood processing industry employs a significant share of the local labor force like Yamada, but employs a relatively low percentage of migrants. Why do local seafood processors hire natives? Also, given an alleged difficulty in recruiting native-born workers to work in the seafood processing industry, why can they do so? I examine how native-born workers prove to be a convenient labor force for the local character of seafood production, which has been hard-hit by the declining demand for local products. I also show how employers make concessions to native-born workers to retain their services.

The preceding chapters have revealed that migrants are geographically widespread in the seafood processing industry in Japan, but that they are also concentrated where the local industry is petite industrialized. This outcome is certainly different from a dominant pattern of labor migration in which migrants concentrate in large urban areas. But is it still distinctive in the context of the new labor migration experiences in the United States? Since the 1990s in America, the food processing industries have increasingly incorporated Mexican migrant labor outside traditional settlement areas such as Los Angeles, contributing to a geographic dispersion of migrants in the country. These are apparently similar, emerging dynamics of labor migration across the Pacific. Chapter 5 analyzes whether or not petite industrialization explains the demand for migrants in the U.S. case as well. If the relative concentration of migrants in the petite industrialized seafood processing sites is an outcome of the adaptation of seafood processing businesses to the Japanese opportunity structure of labor migration, this outcome may not be the case in the United States. This chapter corroborates this point, exploring the cause of the demand for migrants in the U.S

meatpacking and poultry processing, and seafood processing sectors. The concluding chapter summarizes and reviews the main arguments of the dissertation.

Chapter 2.

Analyzing Local Demand for Migrants: Does Petite Industrialization Matter?

This chapter addresses the causes of local variation in the demand for trainee and technical intern migrants in the Japanese seafood processing industry, investigating what economic, demographic, and industrial factors are responsible for the demand for migrants in this industry. In the context of the restrictive regime of immigration in Japan, the establishment of the Foreign Trainee/Technical Intern Program (FTTIP) has certainly contributed to the increase of *de facto* migrant workers in the seafood processing industry. It is not only the numerical increase of migrants at the national level that is important, however. With the increasing number of seafood processing companies that use FTTIP, migrants have been increasing in various parts of the country.

Despite this fact, not all seafood processing businesses bring trainees and technical interns in. In addition, not all regions of the country introduce these migrants into the local seafood processing to a similar degree. Rather, there is a significant local difference in the relative degree to which the seafood processing companies use these migrants. As a result, although the seafood processing industry, in some areas, shows a high proportion of migrants in its labor force, the same industry in others does not. What accounts for this local difference?

This chapter explores this issue. In so doing, it pays particular attention to whether the industrialization of the local seafood processing sector matters for explaining the demand for migrants in this industry. In the previous chapter, I hypothesized the importance of petite industrialization in explaining the demand for

migrants under the FTTIP. To the extent that this hypothesis holds true, the degree of industrialization should be one of the most significant factors that account for the demand for migrants in the Japanese seafood processing industry. This chapter seeks to investigate this issue using a statistical regression analysis. One more word is warranted concerning this time period; as shown below, a main dataset used in this analysis (the 2008 Census of Fisheries) was taken before a revised policy of the FTTIP, which abolished the Trainee Program (implemented in 2010).³⁵

Factors That Shape Local Demand for Migrants

Among several local factors that could shape the demand for migrants, of primary interest here is the effect of industrialization of the local seafood processing industry. On one hand, drawing upon the insight from the dual labor market theory (Piore 1979), it might be expected that the lesser industrialized seafood processing sector generates a larger demand for migrants. This theory suggests that the demand for migrants occurs in the competitive, secondary sector of the economy. With few resources and alternative strategies, employing migrants represents - for this sector - one of the few means for survival in the global economy (Portes and Walton 1981). Applying this theoretical insight, it may be expected that the demand for migrants is more likely to emerge from more “backward” companies within the industry. This line of reasoning also aligns with a popular Japanese discourse that links the use of the FTTIP with a life-extension strategy of companies that would otherwise be forced to

³⁵ The 2013 Census of Fisheries (not yet published) will offer important data to take into consideration when looking at the possible effect, if any, of this policy change on the demand for migrants. This census is taken every 5 years.

leave market. To the extent that this scenario holds true for the Japanese seafood processing industry, we may expect that the least industrialized seafood processing sites show the largest demand for migrants.

Yet the petite industrialization hypothesis expects an opposite outcome. To be sure, this is not to suggest that the dual labor market theory is entirely wrong. This theory indeed provides a valuable insight as to why the seafood processing sector, characterized by low pay, unstable employment and unpleasant working conditions, draws upon migrant workers relative to other industries. But petite industrialization casts doubt on a straightforward application of this theory in understanding the different local degrees of the demand for migrants under the Japanese opportunity structure of labor migration. Specifically, it expects that the demand for migrants is more likely to come from more industrialized seafood processing sites, because a more industrialized production system can gain more through the use of migrants brought in under the FTTIP.

In this analysis, I use the productivity of the local seafood processing sector as an indicator of the degree of industrialization. If a certain local seafood processing site has developed an industrialized production structure, it should record high productivity as a result. Thus, to the extent that petite industrialization really matters for generating demand for migrants, in a statistical regression analysis, the productivity of the local seafood processing industry should show a significantly positive association with the proportion of migrants in that industry.

To be sure, even if such an association is confirmed in the statistical analysis, it will still be too early to declare the importance of industrialization as a factor that

causes the demand for migrants. One main reason for this is due to the complexity of the causal relationship. Though it tells us about the strength of correlation between two variables, a regression analysis itself does not give precise information about the causal relationship between variables. Because of this, even after a significant correlation is confirmed, it will still be necessary to look at whether the productivity is primarily a cause of the demand for migrants, or if the high proportion of migrants is precisely the reason why the local seafood processing records such high productivity. Nevertheless, to the extent that the regression analysis shows a positive correlation between the productivity and the proportion of migrants in the local seafood processing industry, it will at least provide an initial support for the argument that petite industrialization matters. If so, it will then warrant a further detailed analysis on the complexity of the causal connection. To the extent that the regression analysis does not show a positive association, it may then be concluded that petite industrialization does not actually matter.

In order to detect whether and how productivity influences the demand for migrants, however, it is also necessary to control for other factors that might be related to the local demand for migrants in the seafood processing sector. I thus look at the effect of the following economic, demographic, and industrial variables in the analysis. The first is the local percentage of (all) migrants. If a certain seafood processing site is located near a migrant neighborhood, however small that neighborhood may be under the restrictive regime of immigration in Japan, then it may be of little wonder that that seafood processing site records a relatively high proportion of migrants in its labor force. This control is necessary since, as will be detailed in the next section, the

dependent variable – the proportion of migrants in the seafood processing in each city or town – does not distinguish between these migrants by legal status. Although it is expected that the great majority of migrants in the seafood processing sector are those who have been introduced under the FTTIP, the reason for which will be also discussed in the next section, this presents a limitation in the dependent variable. This limitation should be carefully dealt with so as to be able to best assess the effect of productivity on the demand for trainees and technical interns. For this reason, I include the local percentage of all migrants in the analysis as a control variable, which, net of other factors, may have a positive effect on the dependent variable.

Second, I also control for the effect of the local economic condition. I do so by including the local unemployment rate in the analysis. A lower unemployment rate means a better economic climate, which may make it more difficult for local seafood processing companies to secure native-born workers, leading them to rely on trainees and technical interns as an alternative source of labor. To the extent that this is the case, the unemployment rate should have an inverse relationship with the percentage of migrants in the local seafood processing sector.

Third, I also control for the percentage of service industries in the total local employment share. Given that seafood processing work may not generally be attractive to native-born workers, seafood processing companies may have more difficulty in securing native-born workers where other sorts of service jobs are readily available for natives. If so, the local percentage of service industries should be positively associated with the percentage of migrants in the local seafood processing industry.

The following three variables are specifically related with the character of the

local seafood processing industry. The first variable is the percentage of the seafood processing labor force as part of the total local employment. This percentage indicates the extent to which seafood processing is a major local industry. If this percentage is high, it means that seafood processing is a major local industry. If this is the case, local seafood processing companies may have greater difficulty in securing native-born workers, since a large number of native-born workers are already employed in the seafood processing sector. Thus, this variable should be positively associated with the demand for migrants. Perhaps this is one of the most conventional explanations for the demand for trainee and technical intern migrants. If productivity really has an impact on the demand for migrants, however, it should show a significant effect on the proportion of migrants even after controlling for the percentage of the seafood processing labor force in the total employment.

The second is the average size of local seafood processing establishments. As shown in the previous chapter, it is the small- and medium-sized companies, regardless of industry, that currently actively utilize the FTTIP to introduce migrant workers. Among these companies, in addition, the demand for migrants is especially concentrated in smaller companies (JITCO 2000-2012). This trend is certainly applicable for the seafood processing industry as well, in which establishments that have migrants are concentrated in those that are smaller in size (see Column B in Table 2.1). But this outcome can also be misleading, since it simply reflects the fact that smaller establishments dominate the seafood processing industry. In other words, the employment of migrants tends to be concentrated in smaller establishments, because there is a larger number of these establishments. On the other hand, we can gain a

different insight by looking at what proportion of migrant-employing establishments are of a similar size. From this perspective, as Column C in Table 2.1 indicates, larger establishments are more likely to have migrants. Thus, it is expected that the average local size of seafood processing establishments is positively associated with the demand for migrants.

Table 2.1: Number and Percentage of Seafood Processing Establishments That Have Migrants. Source: Created by the author from data from the Japanese Ministry of Agriculture, Forestry and Fisheries (2008)

Size of Establishment (# of Employees)	A. Total # of Establishments	B. Establishments Having Migrants	C. B/A (%)
1 to 29	8313	722	8.7
30 to 49	791	252	31.9
50 to 99	637	285	44.7
100 to 299	316	166	52.5
over 300	40	21	52.5

The last variable concerns the wage levels of the local seafood processing industry relative to the average local wage levels. The lower this level is, the more difficult it is for the local seafood processing industry to secure native-born workers, since local natives probably have better job options other than seafood processing. Thus, the lower wage level offered in the seafood processing industry may be associated with the higher demand for migrants in this industry.

Data and Methods

I conduct a regression analysis so as to examine whether and how the

productivity of the local seafood processing industry is associated with the demand for migrants while controlling for other local economic, demographic, and industrial factors. Conducting a statistical analysis concerning migration in Japan is not an easy task. Due to the limited source and availability of information, no single dataset sufficiently meets the request of researchers. Because of this, I created an original dataset for this analysis by combining several existing official datasets. Although certain limitations still exist, this dataset makes it possible to investigate how the demand for migrants is associated with various local factors, including the productivity of the local seafood processing sector.

First, the dependent variable in this analysis – the demand for migrants in the local seafood processing industry – is operationalized as the percentage of migrants in the seafood processing industry in each city or town. This is because the vast majority of migrants in this industry are thought to be those who were brought in by the FTTIP. I created this variable with the use of the 2008 Census of Fisheries (Japanese Ministry of Agriculture, Forestry and Fisheries 2008). Although this Census surely provides valuable information in the context of the limited availability of statistical data on migrants in Japan, it is not without limitations. These limitations include: (1) that the dataset does not differentiate migrants by their visa status, and (2) that, although the dataset counts technical interns, it does not include the number of trainees.

Despite these limitations, the Census of Fisheries still proves useful. The first limitation can be compensated by the fact that the vast majority of seafood processing migrants are estimated to be technical interns. That is, while the Census of Fisheries counts 11,629 migrants working in the Japanese seafood processing in 2008, according

to JITCO (2000-2012), the number of trainees who applied for technical internships in seafood processing occupations were recorded as 4,848 and 5,326 in 2006 and 2007, respectively. Considering that the technical internship lasts for two years, therefore, over 10 thousand migrants included in the Census of Fisheries are estimated to be technical interns.

In addition, the fact that the vast majority of migrants in the dataset are considered to be technical interns also helps to mitigate the problem of the second limitation: the elimination of trainees. In the majority of cases, the geographic location of trainees is identical to that of technical interns, since trainee status is a precondition for technical internship. Thus, where there are few technical interns, there are also a small number of trainees. Therefore, the absence of trainees in the dataset does not significantly skew the variation in the local percentage of migrants reported in the Census of Fisheries. Excluding cities and towns for which information is kept confidential (due to the small size of the local seafood processing operation), the Census of Fisheries produced the total of 564 cases.

The control variables draw upon the following data sources. First, I use the 2000 Population Census (Japanese Statistics Bureau 2000) to obtain the percentage of (all) migrants in each city and town. Given that the percentage of trainees and technical interns in the seafood processing sector started to show a rapid increase after 2000, a high local percentage of migrants in 2000 means that migrants existed in that city or town independent of the introduction of migrants by the local seafood processing industry. Thus, using the figure in 2000 offers a solution to the causality issue of whether a high local percentage of migrants in a given city or town causes, or

is caused by, a high percentage of trainees and technical interns in the local seafood processing sector.

I use the 2005 Population Census (Japanese Statistics Bureau 2005) for the local unemployment rate and the local size of service industries. Considering that the dependent variable was collected in 2008, there is admittedly a three-year gap between the dependent and these two independent variables. But the Population Census is the only dataset that provides this kind of information at the city/town level.

As for variables regarding the character of the local seafood processing industry, I calculate the relative local size of seafood processing employment using the 2005 Population Census and the 2008 Census of Fisheries. I use the 2008 Census of Fisheries for calculating the average local size of seafood processing establishments. For the variable that provides the relative wage level of the local seafood processing industry, I utilize the 2008 Census of Manufacturers (Japanese Ministry of Economy, Trade and Industry 2008) and the 2008 Basic Survey on Wage Structure (Japanese Ministry of Health, Labour and Welfare 2008a), which respectively report an average annual payroll of local seafood processing employees, and also of the labor force as a whole. This wage variable is set at the prefecture level, since the prefecture is the smallest geographical unit available for this information.

Lastly, as a parameter of productivity, I use the total annual volume of the local seafood production, measured by weight, per employee.³⁶ It is assumed that the

³⁶ The Census of Fisheries also reports an annual sales amount by seafood processing establishments. While this parameter can also be used for calculating productivity, it is less accurate compared to the annual production volume. This census provides eight ordinal categories that describe the range of an annual sales amount, and reports how

high figure of this parameter reflects high productivity. If the degree of industrialization really matters for the demand for migrants, this variable should show a positive association with the percentage of migrants in the local seafood processing sector. I calculate the figures using the 2008 Census of Fisheries, which reports the total annual production volume, measured by weight, of seafood products as well as the number of employees. Since the information about the former is only available at the prefecture level, the productivity variable is also set at this geographic level.

One more word is necessary regarding the procedure used to create the productivity variable. As I mentioned above, one limitation of this dataset is that it does not include trainees. This causes the problem that the production volume per employee tends to be larger where migrant employees constitute a larger proportion of the local seafood processing labor force (since it is presumed that a larger number of trainees are also present there). In order to deal with this problem, I undertook the following procedures. First, using the information provided from JITCO (2000-2012), I obtained the total number of applicants for the seafood processing technical internship in 2008, which serves as a proximate number of trainees in the seafood processing that year. Then, I added the number of these trainees to each prefecture, depending upon the proportional distribution of migrants by prefecture that is calculated from the 2008 Census of Fisheries. In this way, I included both the number of employees, reported in the Census of Fisheries, and the estimated number of

many seafood processing establishments fall into each category. But the problem is that the last category codes the sales amount as “over one billion yen (approx. over 10 million dollars).” This coding makes it impossible to accurately calculate annual sales of some big seafood processing establishments. For this reason, this study uses the production volume to calculate productivity.

trainees in calculating productivity.

Before proceeding to the statistical analysis, one more comment is warranted concerning a statistical model used in this analysis. Here, I conduct a multilevel regression analysis in order to address a gap in the geographic unit between the dependent variable, which is based on the city/town level, and productivity (as well as the relative wage level) variable, which is set at the prefecture level. The OLS regression may not be a suitable model given this gap, since it could conflate the effect of productivity with other unobserved, random effects that may also exist at the prefecture level, leading to an inaccurate measurement of the impact of productivity. The multilevel model allows this analysis to separate the effect of productivity from that of other random effects operating at the prefecture level, making it possible to produce a more accurate measurement of productivity (as well as the relative wage level) variable. Thus, the multilevel regression presents a more appropriate model for dealing with the limitation of the dataset. Table 2.2 shows the descriptive statistics of the variables used in the analysis.

Table 2.2: Descriptive Statistics

	Mean	S.D.
% of Migrants in Seafood Processing	3.31	5.86
% of Migrants in 2000	0.62	0.68
Unemployment Rate (%)	5.86	1.96
% of Service Industries	57.75	9.34
% of Seafood Processing	1.73	3.20
Average Establishment Size	19.90	19.09
Relative Wage Level of Seafood Processing (%)	53.48	5.67
Production Volume per Employee (ton) [Productivity]	15.47	8.52
# of Case	564	

Results

Table 2.3 shows the result of the multilevel regression for determinants of the percentage of migrants in the local seafood processing industry. Among six control variables, two of them do not show a significance effect: % of Service Industries and Relative Wage Level of Seafood Processing. Between these two variables, what is curious is the insignificant impact of the latter. While the low wage level within the seafood processing sector may be one reason why this industry tends to need more migrants than other industries at the national level, the result shows that it is not among the main determinants of the demand for migrants when the comparison focuses on the inter-local difference within the industry.

Table 2.3: Multilevel Regression for the Percentage of Migrants in the Local Seafood Processing Industry

	Coef.	S.E	
Intercept	2.713	3.39	
% of Migrants in 2000	1.196	0.37	**
Unemployment Rate (%)	-0.330	0.13	**
% of Service Industries	-0.006	0.03	
% of Seafood Processing	0.500	0.08	***
Average Establishment Size	0.035	0.01	**
Relative Wage Level of Seafood Processing (%)	-0.028	0.06	
Production Volume per Employee (ton) [Productivity]	0.144	0.04	***
# of Case	564		
Notes:			
* p<0.05, ** p<0.01, *** p<0.001 (two-tailed test)			

The rest of the four control variables show a significant, predicted effect on the percentage of migrants in the local seafood processing industry. First, the % of Migrants in 2000 has a positive association with the dependent variable. This indicates that, when other conditions are equal, local seafood processing companies are more likely to employ migrants where there is a higher concentration of the migrant population. Or, perhaps this result might also partially reflect the fact that, by 2000, there were at least some places that had already introduced migrants into the local seafood processing sector.³⁷ Second, the Unemployment Rate has a negative effect on the percentage of migrants in the seafood processing sector. This also makes sense, since a lower unemployment rate means a smaller local labor force. This should pose a

³⁷ In this instance, for example, see Honda and Ono (2002) and Meguro (2005) for the case of the seafood processing industry in Oarai Town, Ibaraki.

problem for local seafood processing companies, urging them to rely on migrants as an alternative labor force.

Third, the % of Seafood Processing is also positively associated with the percentage of migrants in the seafood processing industry. As noted previously, the % of Seafood Processing indicates the extent to which the local seafood processing sector presents itself as a major local industry. A high percentage means that the seafood processing industry is a major local industry, employing a large number of individuals from the local labor force. In such places, seafood processing companies find it more difficult to secure native-born workers since a large share of native-born individuals are already employed in this industry. This prompts these companies to rely on migrants as an alternative labor force. Perhaps this finding is what is most often invoked in popular imagery. The result shows that this idea does indeed have statistical support.

Forth, the average local size of the seafood processing establishments also has a positive effect on the percentage of migrants in the seafood processing sector. This result indicates that the larger the size of establishments is, the more difficult it is for these establishments to secure native-born workers, net of other factors. It is also in line with the tendency shown in Table 2.1.

The most important finding from the Table 2.3 for this study is that the productivity of the local seafood processing industry, as measured by the production volume per employee, has a significant effect on the percentage of migrants in the local seafood processing sector. Not only is the effect significant. It is also positive, meaning that migrants are more likely to be present where the local seafood processing

industry records higher productivity. Importantly, this effect still holds equal when two relevant variables that may also relate to the productivity – % of Seafood Processing, and Average Establishment Size – are controlled for in the model. Even with these variables controlled, the productivity variable still has one of the strongest effects on the dependent variable in the model.

Thus, the statistical analysis above indicates the importance of high productivity in understanding labor migration into the Japanese seafood processing industry. I also conducted the same analysis using the same variables with OLS regression, but the basic finding was similar. The result of that analysis appears in Appendix C.

To what extent is this result robust? In order to examine the robustness, I also conduct a regression analysis that modifies the above regression model in two different ways. First, in the new model, I set the unit of analysis at the prefecture level. I do so to look at whether or not the productivity of the local seafood processing sector still shows a significant effect with the different unit of analysis used. If the effect of the productivity is robust enough, it should still show a significant effect in this model too. Here I employ the OLS regression since all the variables are based on the same geographic unit (that is, prefecture).

Second, while the previous model used the unemployment rate as an indicator of the local economic condition, here I use another representative indicator of the balance of labor supply and demand, that is, the ratio of job offers to job seekers (*yūkō kyūjin bairitsu*) (Japanese Ministry of Health, Labour and Welfare 2008b), which is

available at the prefecture level.³⁸ In this ratio, 1 means that the number of job offers completely matches that of job seekers. A figure over 1 means that there are more job offers than job seekers, which means that the local labor market is tighter. Thus, it is expected that the ratio of job offers to job seekers is positively associated with the percentage of migrants in the seafood processing industry. I employ the annual average of this ratio in 2008. Table 2.4 shows the result of the modified regression analysis.

Table 2.4: OLS Regression for the Percentage of Migrants in the Local Seafood Processing Industry (Prefecture Level)

	Coef.	S.E	
Intercept	-8.016	7.04	
% of Migrants in 2000	0.543	1.33	
Ratio of Job Offers to Job Seekers (%)	5.411	2.33	*
% of Service Industries	-0.017	0.10	
% of Seafood Processing	-0.168	1.64	
Average Establishment Size	-0.013	0.04	
Relative Wage Level of Seafood Processing (%)	0.020	0.01	
Production Volume per Employee (ton) [Productivity]	0.292	0.06	***
Adjusted R ²	0.471		
# of Case	46		
Notes:			
One prefecture is excluded due to the lack of information on the wage level.			
* p<0.5, ** p<0.01, *** p<0.001 (two-tailed test)			

The result shows some interesting similarities and differences compared to the outcomes reported in Table 2.3. As for the difference, among control variables, only one variable indicates a significant effect on the dependent variable. Only the Ratio of

³⁸ The data is based on information provided by the Public Employment Security Office.

Job Offers to Job Seekers has a significant effect. This effect is a predicted one, since the higher value of this variable indicates more job offers than job seekers, which makes it more difficult for seafood processing companies to secure native-born workers. The % of Migrants does not show a significant effect, which means that the relative presence of migrants in the seafood processing sector is little correlated with the relative presence of migrants at, at least, the prefecture level. Two variables are related with the character of the seafood processing – % of Seafood Processing and the Average Establishment Size. These do not show a significant effect in this model. At the prefecture level, at least, these two aspects of the seafood processing sector have little influence on the decision of seafood processing companies to introduce migrants through the FTTIP.

The most important finding in Table 2.4 is that, in this model as well, the productivity variable still shows a significant effect on the percentage of migrants in the seafood processing industry. Moreover, the effect of this variable remains very strong, with the *p* value measuring below .001. At the prefecture level, a significant part of the variation in the percentage of migrants in the seafood processing industry is explained by the productivity of this industry. Together with the result reported in Table 2.3, thus, it can be concluded that the effect of the productivity is robust enough.

Conclusion

Since the establishment of the FTTIP, the seafood processing industry in Japan has increasingly incorporated migrant labor. Moreover, reflecting the character of the FTTIP, in which businesses invite migrants, migrants working in the seafood

processing sector have been found in diverse parts of the country. Yet, not all places introduce these migrants to the similar relative degree. To the contrary, there is a significant difference in the degree to which the seafood processing sector brings in migrants. Thus, while some places show a high percentage of migrants in the local seafood processing labor force, others do not.

In order to address these questions, this chapter analyzed what local factors explain the demand for migrants in the Japanese seafood processing industry. In so doing, it paid particular attention to whether and how the degree of the industrialization of the local seafood processing industry may be associated with the proportion of migrants in the local seafood processing labor force. It did so for the purpose of looking at whether or not petite industrialization really matters for generating the demand for migrant workers.

The result of the analysis lent initial credit to the argument that petite industrialization matters. Not only did the productivity of the local seafood processing sector – a proxy for the degree of industrialization – indicate a significantly positive effect on the percentage of migrants in the local seafood processing industry. It was also one of the strongest predictors. In addition, this outcome also held even with other relevant factors being controlled for, such as the local employment share of seafood processing industry, and the average size of local seafood processing establishments. The fact that the productivity of the local seafood processing industry is significantly associated with the percentage of migrant workers provides significant, if not complete, support for the argument that petite industrialization is more likely to generate the demand for migrants.

The analysis is still incomplete, however. In essence, what the statistical results presented here have showed is a significant correlation between the productivity and the proportion of migrants, but not necessarily a causal relationship between these two. This issue is of particular importance for the case at hand. While I conducted the statistical analysis with the assumption that productivity is a cause for generating the demand for migrants, it is also possible to interpret the results of the analysis in a contrasting way, which is that high productivity is not so much a cause as a consequence of the high proportion of migrants. The statistical analysis here does not clearly reveal this causality issue.

So which is more causally important, the productivity or the proportion of migrants? Does the productivity primarily matter as a cause in line with the argument that petite industrialization generates larger demand for migrants? Even if this is the case, then, how does productivity specifically translate into the demand for migrants? The next section engages these issues with a qualitative analysis focusing on the case of Yamada City (pseudonym), where the local seafood processing industry counts as one of the highest utilizers of migrant workers in its labor force.

Chapter 3.

The Matter of Causality: Migration and Productivity in the Seafood Processing Industry in Yamada City

The statistical analysis of the previous chapter showed that high local productivity is among the most significant factors related to the percentage of migrants in the seafood processing industry in Japan. Given that the vast majority of seafood processing migrants are introduced under the Foreign Trainee and Technical Intern Program (FTTIP), this result indicates that trainees and technical interns are more likely to be found in localities where the local seafood processing shows higher productivity in its production. But precisely how are the productivity and the relative presence of migrants associated with each other? Does this association really reflect the importance of petite industrialization in explaining the demand for migrants?

This chapter addresses this issue. More specifically, it investigates two questions that the statistical results of the previous chapter left unaddressed. They both concern the matter of causality. The first question concerns a causal direction. That is, is high productivity a cause that is responsible for the high proportion of migrants in the local seafood processing industry, or is the high proportion of migrant workers precisely the reason why the local seafood processing records high productivity?

To the extent that petite industrialization matters, high productivity should be a cause. On the other hand, it also seems plausible that the presence of migrants is a booster for increasing the productivity of the local seafood production. For instance, Kamibayashi (2009) suggests one benefit of utilizing the FTTIP in the following way: “the labor force composition of [migrant-] receiving medium, small, and tiny

companies is in many cases a small number of middle-aged and older male employees, and middle-aged and older female part-time workers, so it cannot be over emphasized the importance of the youth of the labor force that appears in the worksite, even if they are foreigners who do not speak Japanese well (43).” Taking into consideration that, in the seafood processing industry as well, the production labor force is mainly constituted of middle-aged or older women who work as part-time workers, it indeed sounds plausible that bringing young trainees and technical interns in will contribute to enhancing the work productivity. To the extent that the productivity boosting role of migrants is more important, the presence of migrants primarily explains the high productivity rates.

This chapter also addresses another question. Even if the productivity is primarily a cause for bringing migrant workers in, and not vice versa, specifically how do the productivity rates translate into the demand for migrants? To put it another way, what is the concrete mechanism by which the high productivity of the seafood processing sector generates the demand for migrants under the FTTIP?

This chapter investigates each of these questions. Exploring these questions necessitates a closer look at the dynamics of the local seafood processing industry that shapes the demand for migrants. Thus, the chapter conducts an analysis principally by looking at the case of the seafood processing industry in Yamada City (pseudonym). Yamada is a small- or, at best, medium-sized city located on the Pacific coast, whose local seafood processing industry has developed along with the local fishery industry that records one of the largest volumes of fish catching in Japan. Although currently

declining,³⁹ the seafood processing industry still stands as an important local industry, with about 6 percent of the total local labor force.⁴⁰ In line with the national tendency, moreover, the aggregation of small- and medium-sized companies characterizes the local seafood processing industry.⁴¹

This chapter zeroes in on this city for two reasons. First and foremost, according to the 2008 Census of Fisheries (Japanese Ministry of Agriculture, Forestry and Fisheries 2008), Yamada's seafood processing sector has one of the highest percentages of migrants among seafood processing cities and towns in Japan. While the national average of migrants in the seafood processing industry is 5.5 percent, the percentage in Yamada rises to more than triple this average figure. Additionally, Yamada also counts as one of the largest in terms of the absolute number of migrants employed in the seafood processing industry. Given these two features, Yamada offers one of the most important "positives cases" in the context of this study.

Exploring the way in which the Yamada seafood processing industry has generated the largest demand for migrants, this chapter makes two arguments. First, regarding the relationship between the productivity and the proportion of migrants, I argue that the high productivity of the local seafood processing industry is not entirely

³⁹ For instance, both the local seafood processing business establishments and the labor force experienced a significant decline of about 22 percent between 1996 and 2006. The data is based on the author's calculation using the Establishment and Enterprise Census (Japanese Ministry of Economy, Trade and Industry 1996, 2006).

⁴⁰ The author's calculation using the 2005 Population Census (Japanese Statistics Bureau 2005) and the 2008 Census of Fisheries (Japanese Ministry of Agriculture, Forestry and Fisheries 2008)

⁴¹ For instance, among local seafood processing companies, less than one percent of them have more than 100 employees, according to the 2009 Economic Census (Japanese Ministry of Economy, Trade and Industry 2009).

a result of the presence of migrants. For this argument, I show how Yamada's seafood processing sector achieved petite industrialization – the establishment of the mass-production-oriented production structure by local seafood processing companies – *before* these companies actually introduced trainees and technical intern migrants. Second, concerning the mechanism by which high productivity, or petite industrialization, translates into the demand for migrants, I suggest the effect of the imperative of mass production. Yamada's seafood processing industry is distinctive among seafood processing sites in Japan since it has enjoyed a large and stable demand for its products. Despite (or, as will be shown, because of) this, local seafood processing companies are put under continuous pressures for attaining production efficiency. In this structural context, trainees and technical interns represent a preferable labor force for the local seafood processing industry, because of their stability and predictability in employment as well as their cheap cost, as compared with the native labor force that is less stable and reliable. This demand for migrant workers led to the establishment of institutional support for bringing in migrant workers, which in turn resulted in the actual introduction of migrants into the local seafood processing industry.

This chapter is organized in the following ways. In the next section, I first suggest that the attainment of high productivity preceded the introduction of migrants into Yamada, describing the way in which the growing popularity for local products shaped the development of the local seafood processing industry. Next, I offer an analysis of the specific mechanism by which high productivity translates into demand for trainee and technical intern migrants. In the following section, I examine the

robustness of the above arguments by looking at two different cases: (1) a seafood processing company in Yamada that does not introduce migrants, and (2) two other seafood processing sites that also have a high proportion of migrants in their labor forces. This section is followed by the conclusion.

Transformation of the Local Seafood Processing Industry

Today, bonitos (*katsuo* in Japanese) have permeated the dietary life of the Japanese. If you have a chance to visit a supermarket in Japan, you will find bonito products with ease. But there is a trick. If you look for bonitos in the fresh fish section, you may not always find it. If you head to the seasoning section instead, you will never fail to find bonitos, or more correctly, flakes of smoke-dried bonitos put into small packets. While bonito flakes have traditionally been used for making broth, it is also common today to put them in foods for flavoring. Bonito flakes are widely known as *katsuobushi* in Japan today, but they are more correctly called *katsuo pakku* (*katsuo pack*) (literally, packages of smoke-dried bonitos). *Katsuobushi* originally referred to a smoke-dried bonito, which is one step before being thinly shaved into flakes. Today's public conflation between *katsuobushi* and *katsuo pack* indicates how the latter has become prevalent while the former obsolete in the life of Japanese food.

Not only did the *katsuo pack* change the public image of *katsuobushi*, but it also significantly influenced the development path of Yamada's seafood processing industry. Although *katsuobushi* in its original form has mostly disappeared in supermarkets today, it does not mean that *katsuobushi* itself has gone; it now serves as a necessary material for a *katsuo pack*. Yamada is known as one of the few largest

katsuobushi-producing bases in Japan, which together supply over 90 percent of the domestically produced *katsuobushi* (Nakai 2003b). This fact makes Yamada distinctive in the Japanese seafood processing sector. As the fishery economists Kataoka and Mantjoro (2011) state, “the domestic production of *katsuobushi* has been increasing or has remained stable. This is remarkable in the present circumstance, in which most seafood products have reduced their production volume (2).” On the basis of this large stable demand for *katsuobushi*, Yamada’s seafood processing has undergone a significant transformation in its production structure, which, by the 1990s, had culminated in one of the most industrialized production systems in the Japanese seafood processing industry. Thus, the high productivity of Yamada’s seafood processing is not solely the result of the large presence of migrant workers. Yamada’s seafood processing industry had already attained the highly productive production structure prior to the introduction of migrant workers. But how did the large demand for *katsuobushi* emerge? How did it specifically influence the local production structure?

Emergence of Large Product Demand

Katsuobushi did not necessarily enjoy such robust demand throughout the postwar period. It is mainly since the 1970s that *katsuobushi* production has shown a significant increase. The emergence of the *katsuo pack* generated the large product demand for *katsuobushi*.

Katsuobushi has a long history. While it is said that the prototype of *katsuobushi* already existed in the 8th century, the closest origin of today’s *katsuobushi*

– the one with the smoke-drying process – dates back to the late 17th century (Miyauchi 2004). In the Meiji period (1868 - 1912), *katsuobushi* production was spread out across the country, with various prefectures inviting technicians to work within their confines as part of a policy to promote this new industry. The production of *katsuobushi* also went beyond the current national border of Japan in the first half of the 20th century. After Japan gained control over the Micronesian islands following the First World War, the local government in the islands actively promoted *katsuobushi* production as an industrial policy. In Dutch East India (now Indonesia), an entrepreneur from Japan also started the business of fishing and processing of bonitos in an island now called Sulawesi, which attracted Japanese citizens to migrate to the island. The share of the overseas production was so significant that, for instance, the Micronesian islands accounted for about 60 percent of the total production share in the late 1930s (Miyauchi 2004).

The end of the Second World War brought *katsuobushi* production back to mainland Japan. Yet the demand for *katsuobushi* stagnated, a trend which continued through the national economic resurrection. For instance, the volume of *katsuobushi* production equaled to about 9,000 tons in the early 1960s, which was still lower than the volume before World War II (10,000 tons) (Shirafuta 2004). The reason for this stagnation is not entirely clear, but the consensus among Yamada's *katsuobushi* producers was that a task of shaving *katsuobushi* was thought to be troublesome by consumers who increasingly preferred more convenient food (Yamada Katsuobushishi Hensan Inikai 1992).

A breakthrough occurred in 1969, when Ninben, an old wholesaler of

katsuobushi in Tokyo, invented the *katsuo pack* with its own branded name of *furesshu pakku* (*fresh pack*). This product proved successful, eventually generating the huge demand for *katsuobushi*. But why was it so successful? First of all, the *katsuo pack*, which is a small package that contains *katsuobushi* flakes, eliminated the troublesome task of shaving the product. This idea seems simple for sure, and there was indeed a previous attempt to produce a similar product, including that by local seafood processing companies in Yamada. Yet none was successful, since it did not solve the problem that “once you shave [*katsuobushi*], it starts to erode, soon losing its color, smell, and flavor” (Kataoka and Mantjoro 2011: 7).

Ninben’s *katsuo pack* successfully resolved this problem through a few technological innovations. First, it secured the freshness of the bonito flakes by injecting inactive gas into the package. Second, it also invented a multilayered filter, which consists of a couple of chemical materials, in order for the package to contain inactive gas as well as be transparent. Also, since the quality of the product starts to decline once the package is opened, the package size was decided to be small enough to serve for one meal only. While Ninben expected the *katsuo pack* to be for eating, consumers often used it for making broth as well. Eventually, this also encouraged producers to produce a larger package, which also contributed to creating a greater demand for *katsuobushi* (Nakai 2003b).

The growth in demand for *katsuobushi* has been remarkable since the invention of the *katsuo pack*. In 1968 – a year before the appearance of the *fresh pack* – the national production volume of *katsuobushi* was 11,000 tons. In the following year, it recorded a large increase to 14,000 tons. In 1972, with other companies

entering into the *katsuo pack* business, the production volume amounted to 15,000 tons (Shirafuta 2004). The production volume showed a steady increase thereafter too, reaching 25,000 to 30,000 tons between 1982 and 1985, and 30,000 to 35,000 tons between 1986 and 1993 (Kataoka and Mantjoro 2008). It finally logged over 40,000 tons for the first time in 2000 (Miyuchi 2004). Since 2000, the production volume has been stable if not increasing, fluctuating between 35,000 and 40,000 tons annually.⁴²

Development of Production Structure

In what way did the *katsuo pack* affect Yamada's seafood processing? It should be noted first that, taking advantage of the large amount of bonitos brought to the local port, Yamada was already a major *katsuobushi* production site before the appearance of the *katsuo pack*.⁴³ In this context, the invention of the *katsuo pack* provided a further impetus for the local seafood processing sector to establish itself as one of the notable sites of *katsuobushi* production in Japan. Yamada's growth is remarkable indeed. Since the emergence of the *katsuo pack*, the production of *katsuobushi* has geographically converged to the extent that, today, only three sites produce over 90 percent of the *katsuobushi* nationally (Nakai 2003b). Yamada is one

⁴² Yet it should be noted that, today, the large *katsuobushi* production industry is not solely led by the demand for the *katsuo pack* or its related products. The production of the *katsuo pack* has actually declined since the late 1990s (Kuga 2012). But this decline does not necessarily mean that of the *katsuobushi* production itself. *Katsuobushi* has now come to serve as a raw material for further valued-added products. One notable example is that of the premade soups and broths, which has grown to three times its original production volume in the last two decades (Kataoka and Mantjoro 2011).

⁴³ For instance, Yamada's *katsuobushi* already had a big share in the Tokyo market in the early 1900s (Miyuchi 2004).

of these sites, successfully seizing upon an opportunity presented by the growing demand for the *katsuo pack*. Behind this success lie four types of transformations in the production structure of local seafood processing, which led Yamada to be one of the most industrialized seafood processing sites in the country.

The first transformation involves the shift to the year-round production of *katsuobushi*, which was partly promoted by changes in local fisheries. The fishing of bonitos was traditionally a seasonal operation in response to the northbound migration of bonitos to waters near Japan. In parallel with the growing *katsuobushi* production, however, the local fishery started to deploy large fishing vessels with a freezing machine. By so doing, it made the year-round, overseas fishing of bonitos possible. This innovation influenced the nature of the local *katsuobushi* production as well, changing it from a seasonal to year-round operation (Shirafuta 2004).

The second concerns changes in the type of *katsuobushi* produced. Broadly speaking, *katsuobushi* has two different types, each corresponding to a different level of completion in the production process. Between these two, *shiagebushi* refers to the traditional, complete form of *katsuobushi*. *Shiagebushi* has a crucial process of mold-adding after the smoke-drying process. This task is important, since the mold absorbs water and dissolves the fat that still exists within the *katsuobushi*. This task is said to make the product better preserved, tasty, and flavorful. However, it is also time-consuming, usually taking 80 to 90 days (Kataoka and Mantjoro 2008).

Since the invention of the *katsuo pack*, however, *katsuobushi* producers have increasingly chosen to dispense with the mold-adding process. Because of this, *arabushi* (*katsuobushi* without the mold-adding process) has come to constitute a

greater share of the total *katsuobushi* production. Already in 1980s, *arabushi* constituted 70 to 74 percent of the total share of *katsuobushi* production. Yet, that share further increased in the 2000s to be 85 percent of the total production (Kataoka and Mantjoro 2008). Yamada's trend is more extreme: 95 percent of the city's *katsuobushi* is produced in the form of *arabushi* (Kuga 2012).

The third involves the technological innovations in the production process. For the sake of facilitating the understanding of the following discussion, Figure 3.1 provides a broad overview of the *arabushi* production process.

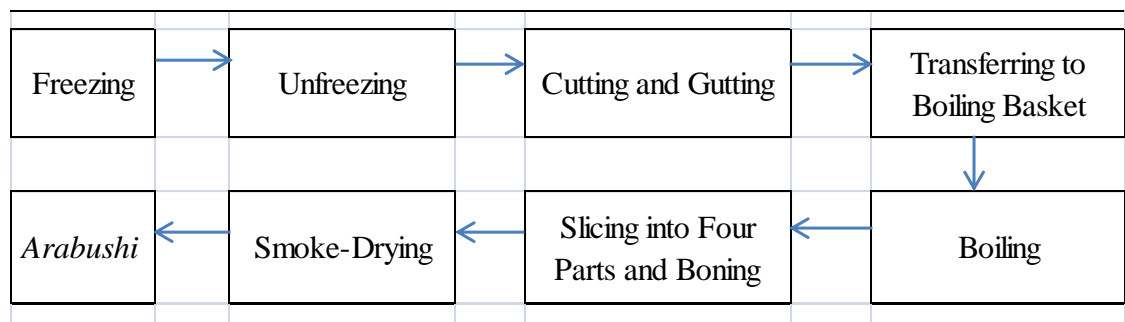


Figure 3.1: Production Process of *Arabushi*. Source: Edited by the author from Ounabara (2006: 36)

The nature of the industry that deals with seafood makes it difficult to entirely automate the production process. Despite this limitation, Yamada is a leader of innovation in *katsuobushi* production. For instance, a revised bonito-head-cutting machine appeared as early as the early 1970s.⁴⁴ In the 1980s, a new head-cutter was also invented, which automated the process of both gutting and cutting with an

⁴⁴ The first head-cutting machine was invented in the 1960s, but was unsuccessful because of frequent breakdowns (Ounabara 2006).

automatic adjustment to differentially sized bonitos (Ounabara 2006). While the most tedious and time consuming part of the *arabushi* production is the smoke-drying, a new drying method was also invented in the early 1970s. In the traditional method, steaming baskets were stacked one on the top of the other, and smoke was injected from below. This required the order of the steaming baskets to be frequently changed. On the other hand, the new method eliminated this tediousness, injecting heat and smoke horizontally from the wall so that boiled bonitos are evenly exposed to smoke and heat.

The fourth also concerns technological innovations, but at the inter-corporate level. The establishment of a seafood processing center (hereafter, SPC) is case in point. This center, established in the mid-1970s by several local companies, is a seafood processing industrial park that originally aimed at the collective disposal of drainage and residues that accompanies *katsuobushi* production. Currently, about 20 companies have production facilities at the SPC. About half of them engage in *katsuobushi*-related business. While having been initially established for the above purpose, the SPC has now expanded its business to include such enterprises as the establishment of a large freezing facility and resource development. Another important enterprise is the operation of a large *katsuobushi* processing facility, established in the mid-1980s, which deals with everything up to the boning process. Production efficiency is pursued through the collective use of this facility by some of local seafood processing companies, which can process up to 80 tons of bonitos a day (Ounabara 2006).

Thus, if the high proportion of migrants is one defining feature of Yamada's

seafood processing today, there is also another feature: the large demand for local products. Yamada's seafood processing industry has developed its production structure based on the product demand over the last four decades or so, which includes: (1) the transition to year-round operation, (2) the shift to *arabushi* production, (3) technological developments at worksite, and (4) development at the inter-corporate level. Through these innovations, the local seafood processing sector has achieved one of the most industrialized production systems in the Japanese seafood processing industry.

This information points to an important implication for the relationship between the productivity and the presence of migrants, which the previous chapter found statistically significant. That is, the presence of migrants is not necessarily the cause that explains high productivity within local seafood processing. To be sure, this is not to say that the presence of migrants does not enhance the local productivity. Trainees and technical interns are young, with the majority of them being in their 20s. This stands in a contrast to the average age composition of native-born workers – part-time women – who tend to be middle-aged or older. Thus, it is surely reasonable to expect that the presence of migrants will contribute to boost local productivity. Yet this is not the entire story. What the above discussion showed is that the local seafood processing sector had already achieved an efficient, industrialized production system by the late 1980s, which is before local seafood processing started introducing migrants into the workforce. In other words, this high productivity precedes the presence of migrant workers.

The Imperative of Mass Production

So the question now is how high productivity specifically translates into the demand for migrants in the seafood processing industry. In order to understand this issue, I maintain that an imperative of mass production is crucial. The imperative of mass production for attaining production efficiency prepares the structural context of production in which trainees and technical interns represent a suitable labor force, which in turn leads to the establishment of local institutional support for bringing in migrant workers.

For the sake of understanding the importance of the imperative of mass production for local seafood processors, it is first necessary to understand the position of the local seafood processors in the overall production chain of *katsuobushi* production. However industrialized the local production system may be, as I noted in the beginning of this chapter, local seafood processing companies still remain small or medium in size. Not only do they not dominate the seafood market in Japan, but also they do not even have control over the *katsuobushi* market. To the contrary, they are put under continuous pressure to achieve production efficiency because of their position in the production chain that unfolded as the *katsuobushi* market grew.

Specifically, in the *katsuobushi* business today, it is much less common to find companies that handle the whole production process. Rather, as one large *katsuo pack* producer says, “the *katsuobushi* business has a two-tier structure that separates the production and shaving of *katsuobushi*” (Shirafuta 2004: 33). The market of the *katsuo pack* is in the state of oligopoly, with the top three companies having close to 70 percent of the market share, and the market share of the top ten companies reaching to

over 90 percent (Nakai 2003b). In this structure, actual *katsuobushi* producers (such as local companies in Yamada) are called “cooperative factories” (*kyōryoku kōjō*) by the large companies that dominate the *katsuo pack* market (Kataoka and Mantjoro 2011). These cooperative factories produce *katsuobushi*, and then ship them to large companies, which in many cases are not local to Yamada.⁴⁵ *Katsuobushi* are then shaved and shipped to the market, labeled with the name of large companies.

Thus, in this sense, many of Yamada’s local processors function as *de facto* subcontractors in the *katsuobushi* business. To be sure, there are also a few local processors in Yamada that produce *katsuo packs* with their own brand names. Yet, even in this case, it is common that they also operate as cooperative factories as a part of their business. In fact, this business practice is so prevalent among local seafood processing companies in Yamada that an owner of one local company suspected: “Probably there is none [no company] that does not do it” (author’s interview). One study indeed finds that the most common transaction partners among the top 20 local *katsuobushi* producers in Yamada are “large companies” (Nakahara 2011).

Certainly, this virtual subcontracting system may not be without any merit. In an industry that is susceptible to fluctuation and/or seasonality in product demand, this system guarantees annual production volume and sales for local companies. Yet, as in the case of subcontracting in other industries, this system favors parent companies in the price setting, with the result that local subcontracting companies (are required to) operate at a low profit margin, producing low-value-added *katsuobushi*. In fact, one

⁴⁵ One early example is Ninben, who invented the *katsuo pack*. Since it lacked a production facility as a wholesaler, Yamada’s local processors served as an actual producer.

local company described the requirement that (*de facto*) parent companies impose on local seafood processing companies in Yamada in the following way:

“You don’t have to make *katsuobushi* in a special way. You don’t have to do anything extra. If you did it, the production cost would get higher and I wouldn’t buy from you. I want to buy from wherever it is the cheapest, so you guys just make the same thing in the same way.” This is the real opinion of [parent companies] (author’s interview).

In this context, the recent growing competition, both international and national, puts additional pressure for production efficiency on Yamada’s local companies. First, there has recently been an increasing volume of the import of *katsuobushi*. Though the import volume had long been less than 2,000 tons, it started to show a rapid increase that reached to 4,000 tons in the late 1990s. In 2006, it went as high as 7,000 tons, equaling 16 percent of the total supply (Kataoka and Mantjoro 2008).⁴⁶ Second, domestic competition has also gotten fierce. As mentioned, Yamada is one of the top three production sites of *katsuobushi* in Japan. Compared to the other two sites, however, Yamada is put in a more disadvantageous position for competition in terms of the labor cost, the regulation concerning drainage, and the procurement of firewood (Kataoka and Mantjoro 2011). Because of this, throughout the 2000s, the production volume of *katsuobushi* has shown a decline in Yamada both in absolute and relative terms. Under the intensifying international and domestic competition, “the reduction of production cost is an absolute must” (Kataoka and Mantjoro 2008: 67) for

⁴⁶ Currently, the primary exporters include Indonesia, Philippines, Maldives, Solomon Islands, China, and Vietnam (Kataoka and Mantjoro 2008).

domestic *katsuobushi* producers.

It is in this context that Yamada has emerged among the most migrant-dependent sites in the Japanese seafood processing sector. Drawing upon interview as well as existing published research, trainee and technical intern migrants represent a suitable labor force in two ways. First, the employment of these migrants, especially trainees, can lead to the direct reduction of costs. In this regard, although details are unknown, one officer at the SPC, which now serves as a primary organization of the FTTIP (this will be discussed later), admits that migrants offer a “cost benefit” to seafood processing companies. This is largely due to the fact that trainees are paid trainee allowance, which is usually far less than minimum wage. In 2006, for instance, the average amount of the monthly trainee allowance for all industries was about 63,000 yen (\$1 is about ¥100) (see Appendix B). The seafood processing sector displays a similar amount. For instance, one study conducted in Chōshi City, Chiba, which also has a high percentage of migrants in the local seafood processing sector, reports the trainee allowance to be about 65,000 yen (Miki 2005). In Yamakawa Town, Kagoshima, which is another seafood processing town, the trainee allowance is reported to be 60,000 yen, and, all the fees and expenses included, it costs 120,000 to 130,000 yen a month to have one trainee (Kataoka and Mantjoro 2008).

Since technical interns are covered by labor laws and thus guaranteed minimum wage, the direct cost benefit of using them certainly reduces. This may be an especially important consideration for the seafood processing industry, where native-born workers, especially part-time housewives, are already employed at or near the minimum hourly wage. Despite the reduction in financial incentive, migrants can

still be beneficial for some seafood processing companies. This benefit does not solely stem from the fact that they are a young labor force. An equally or perhaps more important reason is that they can be employed for up to three years on a full-time basis. Sun (2003) suggests that one benefit of using trainees and technical interns involves their character as a “calculable labor force,” that is, *de facto* three-year “temporary” migrant workers. This calculability proves important for the seafood processing sector as well. For one thing, the author’s interview research as well as previous research (Miki 2005) reveals that, due to the deterioration of the domestic job market, it has become relatively easier than before for seafood processing companies to employ a native-born labor force, one that includes young workers. Nevertheless, showing the high rate of turnover, these workers tend not to be reliable for these companies.⁴⁷ Moreover, while native-born part-time females still make up the main production labor force, their tendency to prioritize their family issues also makes it difficult to assure that they stably work full-time or deal with overtime work (Miki 2011). Their attitude stands in contrast to the one that trainees and technical interns show, as one seafood processor in Yamada says:

All in all, [migrants] work hard. Chinese trainees are mostly in their 20s. They come in their 20s, and work hard. If there is not enough work, they ask to be let to work overtime. ... You will never see it among the Japanese. We were impressed (author’s interview).

Given the difficulty in securing a stable native-born labor force, trainee and

⁴⁷ In the word of one officer at a local seafood processing association, although young native-born individuals occasionally apply for work, “in a few months, we wonder ‘where have they gone?’”

technical intern migrants are (perceived to be) better substitutes.⁴⁸ This is especially the case for Yamada's seafood processing industry, for which a stable and continuous input of labor is an important management consideration under the imperative of mass production. The need to achieve production efficiency on the basis of mass production makes those migrants a suitable labor force in Yamada.

So far, the discussion has focused on analyzing the structural context that generates the demand for migrants in the local seafood processing sector in Yamada. But no abstract force automatically brings migrants into the local seafood processing industry. It is not until an institutional support becomes available that migration actually occurs. By institutional support, I mean the establishment of a "primary organization" and other related supports that are provided to local seafood processing companies. The FTTIP requires small and medium companies wishing to introduce migrants into their workforce to have a "primary organization" that takes charge of the local administration of the FTTIP. In most cases, local business associations, such as cooperative associations, serve in this role. But this primary organization is not necessarily present across seafood processing cities and towns in Japan. More important, not all seafood processing companies are willing to have this organization, as seen in the next chapter. In other words, the fact that a primary organization is

⁴⁸ The importance of a stable work force is also illustrated by an earlier attempt by the local seafood processing industry to bring in migrant workers. Trainees and technical interns are not the first migrant group; they actually have precedents in Yamada: Latin American *Nikkeijin* workers, who were brought in in the midst of the bubble economy. Nevertheless, due to their tendency to search for higher-paying jobs, they failed to settle in Yamada, instead relocating to where higher-paid manufacturing jobs were available. By the late 1990s, according to one informant, local companies stopped introducing *Nikkeijin* workers altogether.

locally present and available for seafood processing companies signifies their collective request for introducing migrant workers. To put it another way, large-scale migration can occur after the collective demand for migrants is materialized in the emergence of the institutional support, at least under the FTTIP.

There are a couple of primary organizations for local seafood processing companies in Yamada. One such example is the SPC, as noted above. The SPC created a primary organization for its membership companies in 2000, when the technical internship program was expanded to include a wider range of seafood processing occupations. Having established a primary organization, the SPC now owns an independent department within this organization, which specializes in the local administration of the FTTIP, including the recruitment of migrants and the management of life and work of migrant workers. Remarkable in this regard is that the SPC also owns a collective dormitory for trainees and technical interns, which contributes to the reduction in the initial cost of the importation of migrant workers for membership companies. According to the SPC, about one hundred out of the total six hundred employees are migrants within the SPC. Behind the large-scale introduction of migrants, the availability of institutional support plays an important role.

Let me briefly summarize. Yamada is distinctive in the Japanese seafood processing industry due to its industrialized – though petite – production structure. In the context of the local seafood processors, as subcontracting companies, put under pressure to achieve production efficiency, pursuing an efficient mass production strategy is an imperative. The mass production imperative prepares the structural context which generates the demand for trainees and technical interns, since these migrants represent

not only cheap but also a stable labor force. This in turn led to the establishment of institutional support, actually initiating the introduction of migrant workers into the local seafood processing industry.

To be sure, this argument does not deny that it is generally more difficult for the seafood processing industry than other industries to secure native-born workers due to the general character of seafood processing work as “jobs that natives do not want.” This general insight, however, does not clearly explain why Yamada’s seafood processing has one of the highest proportion of migrants in its labor force. This question is particularly important when Yamada is compared with other seafood processing sites in which the relative local size of seafood processing employment is similar.⁴⁹ Yamada has generated a large demand for migrants, I argue, because trainees and technical interns represent a labor force that fits into the imperative of the local production systems.

Lastly, at this point, some readers may recall that the revised FTTIP (implemented in 2010) abolished the Trainee Program. Under the new regulations, migrants are introduced as technical interns from the first year, which means an increase in labor costs from a business perspective. How does this influence the demand for migrants in the Japanese seafood processing sector? It is still too early to offer a definite argument, but there is indirect evidence that suggests that the new regulations may (or may not) influence the overall demand for migrants in the seafood processing industry in Japan. Table 3.1 shows the change in the number of applicants for the second-year technical internship in seafood processing occupations for the 5

⁴⁹ This issue will be addressed in more detail in the next chapter.

years between 2008 and 2012.⁵⁰ 2009 saw the highest amount of these sorts of applicants, one year before the implementation of the new regulations. The application numbers may have also been influenced by the Great East Japan Earthquake of 2011, which had a devastating effect on some areas known for their seafood processing activity. In 2011, these applicants recorded the lowest number of these 5 years. However, the number of applicants rebounded in 2012, coming back to about 87 percent of what they were in 2009. Judging from this trend, it seems that, despite the drop in the number of applicants since 2010, overall there was not an overtly dramatic decline in the number of applicants after the implementation of the new policy in 2010. This result may be one indication of the continuing importance of technical intern migrants as a stable labor force for the seafood processing industry.

Table 3.1: Number of Applicants for the Technical Internship for Seafood Processing Occupations, 2008-2012. Source: Created by the author from JITCO (2000-2012)

	2008	2009	2010	2011	2012
Number	5,528	5,890	5,394	4,680	5,098
Percentage Relative to 2009	93.9	100	91.6	79.5	86.6

Assessing Robustness

Using the case study of Yamada City, thus far I have analyzed the way in which the productivity and the proportion of migrants are related to each other in the Japanese seafood processing industry. By so doing, I suggested how the

⁵⁰ Under the old regulations, applicants for the technical internship are trainees. In the new regulations, they are first-year technical interns (technical intern 1) who apply for the second-year technical internship to be technical interns 2.

petite-industrialized seafood processing industry of Yamada generated a demand for migrants. But to what extent is this argument robust? In order to address this issue, I present the following two case studies. They both demonstrate the strength of the petite industrialization argument.

A Negative Case within a Positive Case

Yamada undoubtedly represents one of the “positive cases” among Japanese seafood processing cities and towns in this study, as it imports a large number of migrant workers. However, this does not mean that all the local seafood processing companies now use migrants in Yamada. Within the positive case of Yamada, those that do not use migrants may present a “negative case.” But why do they not use migrants? If the degree of petite industrialization matters, the lesser corporate emphasis on mass production should be associated with the decision not to introduce migrants.

In order to address this issue, I examine the case of one *katsuobushi* producer in the city: Yanai Katsuobushi, Co (pseudonym). Having been in business for over 70 years, Yanai is one of the largest *katsuobushi* producing companies in Yamada. While many other local *katsuobushi* processors of similar corporate size use migrants, Yanai does not. To be more precise, while Yanai previously used trainees and technical interns, it has stopped doing so since the mid-2000s. The case of Yanai illustrates how the shift in the business strategy - away from mass production - is linked to an employment strategy that moves away from the use of migrant labor.

The path that Yanai previously followed closely paralleled many other local

katsuobushi processors in the city. Having traditionally been a *shiagebushi* producer, in response to the growing demand for *katsuo pack* in the 1970s, Yanai made a shift to *arabushi* production. However, operating as a *de facto* subcontractor proved difficult for Yanai, since it forced this company to be “half dead” and “half alive,” just doing “what we are told to do” by parent companies.

Seeing the profit rate lowered, Yanai made a significant shift in its management strategy in the early 1990s, which reduced its dependence on the subcontracting system. The new emphasis is on adding more value to locally produced *katsuobushi* by using Yanai’s own initiative. One such strategy is the so-called “integrated production” (*ikken seisan*) process, in which Yanai itself manages the entire production process - producing, shaving, and selling *katsuobushi* – using its own brand name. Because of this, while in the past the majority of *katsuobushi* that Yanai produced was shipped to large parent companies for shaving and packaging, this shipment has been reduced to less than half its former size. The second strategy turns away from the large scale production of *katsuobushi* to the small scale production of diversified products. Therefore, not only does Yanai currently engage in the “integrated production” of *katsuobushi*, it also produces *katsuobushi*-related, higher value-added products, such as soups, snacks, and seasoning powders. The shift to the diversification of products is also seen in the production of *katsuobushi* itself. Instead of making a single type of *katsuobushi*, Yanai produces several different types of it, according to different usages.

This business model is not yet common in Yamada. Because of this, as one informant of this study noted, Yanai’s attempt is “cutting-edge” among local seafood

companies. It is not without cost, however. The same informant states that, since this attempt is still new, Yanai is still suffering from “birth pangs.” In fact, the president of Yanai indicated that since the changes to its business model, the volume of *katsuobushi* production has been reduced to one third of its previous size. He further speculated that a significant part of the drop in volume of *katsuobushi* production in Yamada can be attributed to the decline in production decline in the company.

Whether or not Yanai’s attempt will eventually prove a huge success still remains to be seen. What is important for this study, however, is that under the new production strategy Yanai also made important changes in its employment strategy. These changes include the cancellation of the use of the FTTIP and the active recruitment of local workers, especially the young. Through an active advertisement at a local fisheries high school, Yanai now seeks to attract local high school graduates. When asked why Yanai is doing this, the president answered:

Because we need to preserve skills. Chinese trainees leave after three years. We used to hire trainees, but now if there are [local] young people who want to do [the job], we need to give them the opportunity to acquire these skills. Those who have these skills are older. They are now in their 70s. So we are thinking that [transferring skills] will only be possible in the next five or ten years. So we stopped [using trainees].

Yamada has been a traditional site for *katsuobushi* production. In the past, the president recalls, locals “were able to figure out which company a certain *katsuobushi* came from just by looking at its shape.” Yet, in the current local seafood processing production system, craft skills are not only unnecessary but also disappearing. This

awareness led Yanai to change its employment strategies. With young native employees, Yanai has started the production of *shiagebushi*, a complete form of *katsuobushi*, in the context that over 90 percent of *katsuobushi* is produced in the form of *arabushi* in Yamada today.

This said, it seems that the shift to the recruitment of native workers was not an easy decision for Yanai. The president freely admitted that this decision has not yet brought financial benefit to the company:

To be honest, we are just patient. ... Since we are also undertaking other business endeavors [other than *katsuobushi* production], we can be patient. If we were not, we would be bringing in a lot of Chinese trainees. ... The *katsuobushi* section [of Yanai] is basically in deficit.

Yanai has not entirely proven successful in its shift in production strategies, still suffering from “birth pangs” as an innovator of the local production model. Yanai took a new employment strategy in this circumstance. What this employment strategy will offer to the company in the future is not totally clear. Regardless, the case of Yanai has an important implication concerning the relationship between petite industrialization and the demand for migrants.

The case of Yanai indicates how going away from the mass production model can lead to a lesser reliance upon migrants. To be sure, this does not mean that the no-migrant strategy is an inevitable outcome, accompanying the shift in production strategies. Rather, what the case of Yanai suggests is that the shift away from the mass production strategy created the conditions under which the no-migrant strategy

becomes a more plausible and possible option. Under these conditions, Yanai's emerging interest in skill preservation eventually led to the new employment strategy that focuses on the recruitment of young native-born workers. In other words, Yanai's decreasing emphasis on mass production served as a distant, yet important cause that eventually enabled this company to take a no-migrant employment strategy. The analysis of the negative case of Yanai corroborates the important association between petite industrialization and the demand for migrants from a different point of view.

Two More Positive Cases

The qualitative analysis of this chapter has thus far focused on Yamada's seafood processing industry and delved into the way in which it generated a demand for migrants. Exploring the case of Yamada is important in and of itself, given the unique status of Yamada's seafood processing industry that has a large number of migrants working in the local seafood processing in both absolute and relative terms. Due to an exclusive focus on this unique case, however, one may wonder whether or not the insight obtained from Yamada also holds true for other "positive cases," that is, seafood processing sites that also depend on a relatively large number of migrants. Here, I address whether or not petite industrialization also matters in other positive cases by briefly looking at two more cases: Chōshi City, Chiba, and Ōarai Town, Ibaraki. As well as the case of Yamada, the proportion of migrants in the seafood processing in these two sites is over triple the national average, with the seafood processing industry representing one major local industry. The analysis below suggests that petite industrialization also matters for these two cases.

Let me start with the case of Chōshi. This city is in one sense very similar to Yamada, since it also produces one of the largest volumes of seafood products and also possesses a nationally important fishing port. The reason why Chōshi has developed its seafood processing business to such a degree has something to do with the geographic location of its prefecture, which is next to Tokyo, the capital of Japan. A quick access to a large consumption base is not the only advantage of being close to Tokyo. The fact that Tokyo also serves as a national center of distribution has also enabled the Chōshi seafood processing industry to have convenient access to other regional markets (Nakai 2003a). This geographic advantage has enabled the Chōshi seafood processing sector to enjoy a large demand for local products.

Being close to the distribution base also provides Chōshi with easy access to imported materials (Nakai 2003a). The significance of imported seafood has especially increased today in the context of the fluctuation and decline of the local fishery resources. In fact, while the processing of mackerel and salmon now represents one principal production activity for the local seafood processing sector, this has been enabled through the large-scale use of imported raw materials.

Pursing production efficiency is important for local seafood companies in Chōshi, not only because of the need to process a large volume of raw materials but also due to the demand from large retail stores for low-priced products. This consideration has promoted local seafood processors to develop a mass production system. For instance, “the automation and the installment of the [production] line are undertaken” for the production of mackerel and salmon fillets, bringing into the worksite “the fillet machine, tunnel freezer, and so on” (Nakai 2003a: 50).

Institutional support for receiving migrants emerged in this local context of production. The local seafood processing industry currently has three primary organizations, all of which receive trainees from China. Miki's study reports that these migrants are assigned to unskilled work in companies that have advanced automation in the production process (Miki 2005).

Yamada and Chōshi are similar in that they are two of the largest seafood processing cities with two of the largest fishing ports in Japan. But are these conditions needed to generate demand for migrants? Not necessarily. The case of Ōarai, a town of about 20,000, illustrates this point. While seafood processing is a major local industry, the local fishing port is not among the largest in Japan but is considered to be, at best, medium-sized. With about one thousand employees in total, the local seafood processing sector is not among the largest in terms of production size, either. Nevertheless, the percentage of seafood processing migrants working there is among the highest in Japan.

Compared to other seafood processing sites of similar size, Ōarai's seafood processing industry has one distinctive feature. As early as the mid-1960s, it has actively introduced and utilized imported seafood. By so doing, it has reduced its dependence on the unstable local fisheries, thereby establishing a year-round operation (Meguro 2005). By the 1980s, the processing of imported capelins had become a major production activity in the town. Since the 1990s, in response to the decline of the importation of capelins, the local seafood processing plants have also processed imported horse mackerels (Honda and Ono 2000).

The use of imported raw materials is also connected with a particular

production strategy. Take the example of horse mackerel. Though being a latecomer as a producer of dried-salted horse mackerel in Japan, Ōarai's seafood processing sector has successfully penetrated the market (Honda and Ono 2000). The reason for this lies in its production strategy. Where others focus on producing high-quality dried mackerels by manually processing domestic horse mackerels, Ōarai's processors specialize in making lower-priced products with the use of imported raw materials, a fish-cutting machine, and a low-skilled work force (Honda and Ono 2000). In the case of Ōarai, increased product demand was generated by using a strategy that focused on the mass production of low-priced products.

Institutional support for bringing in migrant workers emerged within this context of production. But Ōarai is a unique case, as *Nikkeijin* workers from Indonesia make up a large part of the seafood processing migrant workers in the town (Meguro 2005).⁵¹ In Ōarai, a major part of this institutional support comes from the president of a local seafood company who functions as a virtual labor broker. This broker system began when he found, in the late 1990s, that there was a sizeable Japanese-origin population in the island of Sulawesi in Indonesia (Meguro 2005).⁵² With attention paid to the necessary visas and to the requisite worker accommodations in the town, it is reported that, between 1998 and 2005, he brought in 180 Indonesians to work in

⁵¹ This is unique not only because they are *Nikkeijin* but also because they are from Indonesia. The vast majority of *Nikkeijin* in Japan are Latin Americans, especially Brazilians.

⁵² These Indonesians are descendants of the Japanese who migrated to the island for the bonito fishing and *katsuobushi* production in the first half of the 20th century (Meguro 2005).

twenty local seafood processors (Meguro 2005).⁵³

Thus, the case of both Chōshi and Ōarai corroborates the validity of the findings that high productivity is not entirely a consequence of the large presence of migrants. Rather, the presence of a highly productive production structure preceded the introduction of migrants. Migrants are brought into the local seafood processing industry, because the latter requires a stable and reliable labor force under a petite-industrialized structure of production.

Conclusion

The statistical results of the previous chapter indicated a significant positive association between the productivity and the percentage of migrants in the Japanese seafood processing sector. Following these, this chapter delved into the causal mechanism that produced these outcomes. This chapter has specifically addressed two questions: (1) is high productivity primarily a cause or consequence of the large presence of migrants, and (2) if it is a cause, what is the concrete mechanism that translates productivity into demand for migrant labor.

Principally drawing upon the case of Yamada's seafood processing industry, this chapter made the following arguments. First, it argued that high productivity is not solely the result of the large proportion of migrants. Rather, tracing the development of Yamada's seafood processing industry back to the 1970s, this chapter has showed that Yamada's seafood processing industry had already developed an industrialized, highly

⁵³ Nonetheless, it should also be noted that Chinese trainees and technical interns have also been increasing since the early 2000s, with the establishment of two primary organizations in the town (Meguro 2005).

productive structure of production in the Japanese seafood processing before it began to introduce migrants.

Second, as a concrete mechanism in which high productivity translates into demand for migrants, I suggested the importance of the needs created by a system of mass production. While Yamada's seafood processing industry developed an industrialized production structure, this went hand in hand with another type of advancement: a virtual subcontracting system. Assigned the role of *de facto* subcontractors, local seafood companies are placed under continuous pressure to achieve production efficiency, which has recently been exacerbated by growing international and domestic competition. Within this context, an efficient strategy of mass production is necessary, for which a stable and reliable labor force is essential. Here emerges the demand for trainee and technical intern migrants. Not only do they represent a youthful and inexpensive labor force, but, although "temporary," they are also stable and predictable, or "calculable," in their employment on a year-round basis. The characteristics of such a labor force align with the needs created by an industrialized system of production. This, in turn, led to the establishment of institutional support, facilitating the introduction of migrants under the FTTIP.

In order to fully understand labor migration into the Japanese seafood processing sector, some further analysis needs to be undertaken. If one hopes to understand how labor migration occurs under the FTTIP, one must also look at how migration does not occur. This is the issue that I will investigate in the next chapter. For this purpose, I will investigate the case of Kawai Town, where the local seafood processing industry employs a significant share of the local labor force as is the case in

Yamada, Chōshi, and Ōarai. Kawai is different, however, in the fact that it employs a relatively small number of migrants. The next chapter will look at why employers hire native-born workers instead of migrants, and why they can do so, in Kawai.

Chapter 4. **How Does Labor Migration Not Occur? The Seafood Processing Industry in Kawai Town**

Looking at the seafood processing industry in Yamada City, the previous chapter analyzed how the high productivity of local seafood processing relates to the proportion of migrants employed. Through the analysis, the chapter suggested that the high productivity of the local seafood processing sector was not only due to a high number of migrant workers. Rather, the chapter argued that high productivity is primarily a cause of the existence of a large number of migrants, further suggesting that petite industrialization generates demand for migrants under the FTTIP.

Despite these insights, we have not yet reached a clear understanding of how labor migration occurs in the Japanese seafood processing under the FTTIP. This is because, for the purpose of better understanding how labor migration occurs, it is also necessary to look at how it does not occur. In spite of an alleged difficulty in recruiting native-born workers to work in the seafood processing industry, the vast majority of seafood processors have been able to do away with migrant labor and instead draw upon native-born workers. This fact leads to the following question: why do these companies employ native-born workers, and why can they do so? This chapter delves into these issues.

For the purpose of analyzing these issues, this chapter specifically focuses on the case of Kawai Town. I treat this case as a “negative case” – a case in which there is only a small demand for migrants in the local seafood processing sector. To be sure, the case of Kawai is not overtly “negative.” The percentage of migrants in Kawai’s

seafood processing industry is close to the national average of 5.5 percent.⁵⁴ Thus, one may well suggest that Kawai does not offer a “negative” but an “average” case.

However, the importance of Kawai as a negative case becomes clear when compared with the case of Yamada (and Chōshi and Ōarai for that matter), where, as mentioned in the previous chapter, the percentage of migrants exceeds triple the national average. The difference in the percentage of migrants between Yamada and Kawai has important theoretical relevance when the following similarities are taken into account. First and foremost, the seafood processing sector represents a major local industry in Kawai as well as Yamada. While the share of employment in the local seafood processing sector reaches about 6 percent in Yamada, in Kawai it is about 10 percent.⁵⁵ Second, local economic conditions are also similar. Whereas the local unemployment rate in Yamada is roughly 5 percent, the rate in Kawai is about 4 percent.⁵⁶ Thus, despite the similarities in these conditions in Yamada and Kawai, there is a significant difference in the extent to which the local seafood processors in each use migrant labor. Moreover, to the extent that the difference in these conditions is emphasized, Kawai should have shown a higher proportion of migrants in its local seafood processing sector. In reality, however, the migrant proportion is much lower in Kawai as compared with that in Yamada.

The relatively smaller proportion of migrants in Kawai’s seafood processing

⁵⁴ Data taken from the 2008 Census of Fisheries (Japanese Ministry of Agriculture, Forestry and Fisheries 2008)

⁵⁵ Author’s calculation using the 2005 Population Census (Japanese Statistics Bureau 2005) and the 2008 Census of Fisheries (Japanese Ministry of Agriculture, Forestry and Fisheries 2008)

⁵⁶ Data taken from the 2005 Population Census (Japanese Statistics Bureau 2005)

sector indicates the greater presence of a native-born labor force. In the context of the rapid aging population that characterizes contemporary Japanese small towns, existing workers are becoming less and less available in Kawai. Nevertheless, few local seafood processing companies thus far use migrant workers. Then, (1) why do local seafood processors in Kawai hire native workers, and (2) why can they still do so? In order to address the first question, I examine how native-born workers prove to be a convenient labor force for local seafood processors, which have been hard-hit by the declining demand for local products. To address the second question, I analyze how employers make concessions to native-born workers to enable their employment strategy.

I organize this chapter in the following ways. The second section (the next section) provides an overview of the local seafood processing industry in Kawai, with an emphasis on the recent decline of this industry. The third section analyzes how native-born workers prove to be a convenient labor force for the majority of local seafood processors in the context of the local seafood production. The fourth section discusses the limits of the convenience of native-born workers, especially looking at the work schedule arrangement between employers and native-born workers. The fifth section briefly looks at the unwillingness among local seafood processors to establish local institutional support for receiving migrant labor, and how it may be further dampening a potential local demand for migrants. The sixth section looks at whether or not local seafood processing companies are adverse to hiring migrants brought in through the FTTIP specifically. The chapter will be finish off with a conclusion.

Declining Local Seafood Processing Industry

Kawai is a small town with a total population of about 20,000, located on the edge of the Sea of Japan (the other side of the Pacific Ocean), generally a less populous area of Japan. The fishery and seafood processing industries are two of the major economic activities in the town. In fact, despite the small local population of the town, the local fisheries are ranked nationally in terms of their mid-level volume of catch. The local fishery resources include such seafood as sandfish, flatfish, and crabs. The local seafood processing industry has developed principally through the use of these local fishery resources. Reflecting the character of the local fisheries, the majority of local seafood processing companies engage in the dried-salting fish processing or crab processing as all or part of their business. These local seafood processing companies are typically small or medium in size.⁵⁷

While Kawai is similar to Yamada in that seafood processing represents a major local industry, there is one significant difference between them. Unlike Yamada's seafood processing sector, Kawai's counterpart has failed to capture a large and stable demand for local products. The product market for local seafood processing companies in many cases remains regional in scope and is influenced by seasonality. This is not to say that Kawai is unusual. Rather, if there is an unusual case, it is Yamada, with its large demand for local products that reach a wide national market. In this sense, the development of Kawai's seafood processing sector more closely resembles the rest of seafood processing cities and towns in Japan.

⁵⁷ Only about one percent of the total seafood processing establishments have over 100 employees in the town (Japanese Ministry of Economy, Industry and Trade 2009).

The impact of the difference in the demand for local products is reflected in the development of the production processes. In Kawai, there has been little effort made to establish a mass production system comparable to Yamada's. To be sure, this does not mean that no technological innovation has occurred in Kawai. As a large, if not the largest, sites of seafood production in Japan, Kawai has also pursued and, indeed, undergone a certain degree of technological development in the production process. For instance, many local processing companies now own a cold-air dryer, which one local seafood processor thinks of as "the biggest change" in the local seafood processing industry, since it enabled local seafood companies to operate during the hot and humid summer in Japan, thereby allowing them to operate on a year-round basis. More recently, the invention of a fish-scale eliminator and a by-weight fish sorting machine, now owned by some local companies, has also contributed to the mechanization of the production process. Nevertheless, in the absence of large and stable product demand, technological development is limited overall, and it lacks, for instance, a larger-scale production line comparable to Yamada's.

In this context, the local seafood processing sector has undergone a significant decline during the last two decades. Among local seafood processors, the golden era of the local seafood processing sector was the period during the bubble economy of the early 1990s, when, according to some processors, "the more you produced products, the more you sold them." During this period, local seafood processors also utilized imported raw materials to compensate the deficit in local fishery resources. However, the ensuing stagnation of the national economy as well as the growing importation of

cheap seafood, coupled with the decline of national seafood consumption, has hit the local seafood processing industry hard. From the point of view of the local seafood processing cooperative associations, these factors have contributed to the decreasing demand for local products, which has, in turn, led to a consistent decline in the local seafood processing sector since the slow-down following the economic boom.

This is not to say that only Kawai is suffering from this trend. In general, industrial decline is a common experience among seafood processing cities and towns in Japan. Even Yamada's seafood processing sector is not an exception. As mentioned in the previous chapter, both Yamada's seafood processing establishments and labor force experienced a 22 percent decrease between 1996 and 2006. But the declining trend is more salient in Kawai. During the same period, for example, Kawai lost about 29 percent of its seafood processing business establishments and 34 percent of its seafood processing labor force.⁵⁸

In the case of Kawai's seafood processing, the transformation of the wholesale system is an important mediating factor that led to the decline in demand for local products. It specifically concerns the rise of large retail stores and supermarkets. Previously, local seafood processors had an impact on the volume of shipments and on price-setting in wholesale markets. In this system, wholesalers principally played a mediating role that connected local seafood processors with retail stores. The emergence of giant retail stores and supermarkets changed this system. Eager to keep retail prices down, these new actors now own the power to determine these prices. Also, equally conscious of not having an extra stock, they do not dare purchase more

⁵⁸ Data from Japanese Ministry of Economy, Industry and Trade (1996, 2006)

than they order. In this new system, an officer of a local seafood processing cooperative association lamented that wholesale markets function only as a transmitter of orders from large retail stores and supermarkets.

If Yamada's seafood processing sector faces the challenge of increasing production efficiency, Kawai's challenge is to find and secure the demand for local products. Overall, Kawai's seafood processing sector has not been so successful in this regard, experiencing a significant decline in local product demand. Evaluating this turn of events, an officer from a local seafood processing association talked of an acute sense of crisis as regards the future of the local seafood processing industry. He stated, "I seriously wonder how many processors will end up surviving in the next five years." In this cooperative association, the number of membership processors declined by almost a half from the peak period.

In this context, local seafood processing companies has shown little interest in using migrant labor. They instead largely draw on a native-born labor force. To be sure, local processors in Kawai do not necessarily have an overtly negative perception on trainees or technical interns, especially when it comes to their work ethics. Though they may not be using migrants, many of local seafood processors have somehow heard of these migrants employed by others in the same industry. Thus, "I heard they work hard" is a common statement made by local seafood processors, with some even claiming that they work harder than natives. This claim is not only due to the fact that these individuals are migrants. In fact, local processors are aware that they are a specific type of migrants – those who come and temporarily stay in Japan to work and earn money. This fact, coupled with the generally held reputation on these migrants,

help them infer that these migrants work hard.⁵⁹

Despite this fact, the majority of local processors show little willingness to use migrants. Many of them have not even seriously considered it. Thus, their knowledge about the FTTIP is, in many cases, limited. For instance, without being aware of the policy changes in the FTTIP in 2009, one processor stated: “I heard that you can pay less during the trainee period. Wages stay the same [as the Japanese] from the second year on.” There are also other processors that are not sure about the regulations associated with the program, as one processor said, “You first need to prepare a dormitory and such. I don’t know if it has changed now ...” Still other processors clearly misunderstood the regulations associated with the program, which is expressed in the following comment offered by one seafood processor: “I don’t know very much [about the program], but you can get a subsidy if you keep [migrants] for a certain period, right?”

Thus, not only do the vast majority of local seafood processing companies not use migrants, but they also show little interest in doing so. This, in turn, means not only that they principally draw upon native-born workers but also that it is possible for them to do so. But why?

Native-Born Workers as Convenient Labor Force

This section focuses on why local seafood processors use native-born workers. In order to understand this issue, it is very important to recall that the majority of

⁵⁹ One processor, for instance, said: “I think [migrants] have a clear purpose. I think their motivation is high, because they dare to come to such a place like this town, a backward place in Japan.”

native-born production workers are not just any native-born individual, but a specific type of native-born workers in the Japanese seafood processing industry: “*shufu pāto*,” or housewives who work under a contingent work status as “part-time” workers. Kawai’s seafood processing sector is no exception. It has also traditionally drawn upon these female workers as a main labor force. Not surprisingly, a main motivation for this practice concerns labor cost. According to an officer of a seafood processing cooperative association:

Employees are mostly women. ... Sure, there are some male employees, but, as a wage system, there is a desire to keep wages as low as possible, and [that leads to] the employment of women using an hourly wage. If they work a lot, they are paid for that. But, it is still an hourly wage. In addition ... it is a minimum wage. That is how the system works. In the case of male workers, it is necessary to guarantee their living, so they get paid in the form of a monthly salary.⁶⁰

⁶⁰ It is of little doubt that the desire of seafood processors to keep the wage level down is a primary motive in employing housewives as part-time workers. However, interviews with local processors also suggested an additional reason why women are a preferred work force. This is related to a gendered ideology prevalent among local processors. According to some local processors, women are suited for the processing job because of the “character of endurance” that they supposedly have. One processor stated:

Respondent: The seafood processing needs female hands and the fishery needs male hands. There are very few men doing purely processing jobs. Men are obviously more suited to do such work as driving a lift car, moving boxes, or going into the refrigerator. But women are absolutely more suitable for such jobs as cutting small fish ... I mean, for doing meticulous work.

Interviewer: Do you mean that women are better with their hands?

Respondent: It is not really about that. What I mean is, they can keep working without getting bored. Men get bored very quickly and start saying, ‘I don’t want to do this,’ or ‘my shoulders have become stiff.’”

Thus, native-born workers – or part-time female workers – already serve as a cheap labor force for local seafood processing companies. But this is not the whole story. Local seafood processors still rely on native-born workers because they are beneficial in a number of ways. That is, they are a more convenient labor force that fits well into the local character of seafood production. I argue that native-born workers prove convenient in two different ways for local seafood processors in Kawai. The first type of convenience concerns flexibility. The other one involves hiring methods.

Flexible Native Labor

First and foremost, native-born workers are convenient for the flexibility that their labor provides to local seafood processors. Flexibility in this case means numerical or external flexibility, which “refers to the organization’s ability to adjust the size of its workforce to fluctuations in demand by using workers who are not their regular, full-time employees” (Kalleberg 2003: 155). In the labor migration literature,

That is why the work is more suitable for women. They are the best option for this type of job.

Another seafood processor agrees, saying:

We basically hire women, because workers must be patient. Men are not suited for it. It is difficult for male personalities to do the same thing all day, in the same place, such as shrimp or fish processing, so women are definitely better for these jobs. But it also depends, since there are of course women who act more like men as well. If this is the case, I let them do a different job. They like to do jobs that allow them to move, and take and carry things. But, in general, women are more suited to stay still and do repetitive work patiently, generally speaking.

it is now well known that this type of flexibility, as well as low wage, is the reason why employers want to hire migrants (Fernández-Kelly 1991; Morales 1983-1984; Raess and Burgoon 2013; Sassen 1988). Yet, under the restrictive regime of immigration in Japan, native-born female part-time workers principally take this role in the Japanese labor market, including those in the seafood processing industry.

In what way is this type of flexibility important in Kawai? The numerical flexibility of seasonal layoffs and work cuts is important for Kawai's seafood processors. As noted above, the intensification of international and domestic competitions have had a devastating impact on the local seafood processing industry over past twenty years, which has resulted in a decrease, or at best a stagnation, in the demand for local products with little sign of improvement. It has also led to the significant downsizing in operations. Because of this, for many local processors, especially those small in size, securing a stable volume of works on a year-round basis is not justified. This is especially true in the summer, when the local fisheries enter into the off-season and the demand for local products decreases. Certainly, the technological development of the industry, especially the invention of the cold-air dryer, now makes it possible for local seafood processors to operate during this season, and many processors do so. During good economic times, these local processors secure work volume even by processing imported seafood. But the recent decline in the product demand has led to a significant decrease in the work volume during this season. Thus, as one local processor notes, "Everyone has too much free time this season [summer]."

In this context, many local processors find it hard to provide stable work for

their employees as well. For instance, a crab processor, noting that the demand for crab is so concentrated in winter that sales show an extraordinary reverse U curve during this season, also noted that, “during summer, basically all part-timers are absent,” meaning that they are laid off and only regular, full-time employees are asked to work.⁶¹ The situation is similar, if not worse, for fish processors as well. In one fish processing company, for example, the president relates how his company temporarily fires some part-timers during summer, but he also adds that he still usually finishes work before or around 3:00 p.m. Another processor says that the company keeps all part-time workers in summer, but that the daily work usually ends around noon. Still another processor states that it is usual that “if we work half day one day, then the next day is off.”

The end of summer does not necessarily mean the end of the problem. The reliance on local seafood as a major source of raw materials poses a continuous problem even after the local fishery period starts. As one processor notes, even during the on-season of the fishery, the work volume is “really unstable every day,” since it depends on “how much products we have to make [upon order].” The volume of catches also matter in the way that “[w]hen fishes are cheap, we process them a lot. But when they are expensive, we sometimes finish the work around noon.” This processor suggests that he has a tacit agreement with his part-time employees to sustain this unstable, or flexible, employment practice:

⁶¹ Yet, even so, this processor still has a trouble during summer. According to the president, “I have trouble in summer, because we have too little work. I always wonder, “what should I make [my full-time employees] do today?”

I think that those who come [to work] plan to work for 100 to 150 hours a month. But we do not always have a stable volume of work. ... If they work for 120 hours, say they work for 6 hours over a period of 20 days, then they might think that they want to work more. I let them do this because I have known them for a long time. I believe that they are aware and understand it.

When interviewing the local seafood processing cooperative association, one of my questions involved why so few local seafood processors in the town use trainees and technical interns. When asked that question, one officer looked bewildered, and, after a short pause, said, “[local seafood processors] do not even have a sufficient volume of work to give to their own employees, so there is no way to employ foreigners.” This comment seems to aptly summarize what the majority of local seafood processors think. Under the declining trend of local seafood processing, bringing migrants in through the FTTIP for a year-round work does not fit well with the local character of production. Despite the awareness of local seafood processors that trainees and technical interns work as hard or harder than native-born workers, or perhaps it is because of this awareness, it is just too much for these processors to bring migrants in to use them for three years straight. Native part-time women, due to their contingent work status, prove more convenient for local seafood processors.

Native Social Networks

While flexible employment may be a primary cause of why native-born part-time female workers are preferred in Kawai’s seafood processing industry, it is not the only incentive in hiring them. There is a second reason, that of hiring strategy. In hiring these native-born workers, many local processors admit that they often make

their own or their employees' social connections, implicitly or explicitly recognizing the utility of the social network recruitment - the reduction of the transaction cost in recruitment (Bailey 1987). This does not mean that social networks are a major recruitment method for all processors. Some agree that another basic method for recruitment is job advertisements in local public employment offices. Even so, they still show their preference for social network recruitment, doubting the "quality" of job seekers who apply through the public employment office.⁶²

Again, it is worth mentioning that the immigration literature emphasizes time and again the importance of migrant social networks. While one current within the literature points to the importance of migrant networks in sustaining migration flows from the migrants' country of origin to the receiving country (Massey et al. 1987; Massey et al. 1998), another current addresses the significance of networks in

⁶² For instance, respondents stated that recruitment through the public employment office does not work. The president of one local seafood processing company goes on to say:

Respondent: All companies, of a similar size as mine [about twenty employees], are saying the same.

Interviewer: Why?

Respondent: They do not last long.

Interviewer: How long do they last?

Respondent: Well, I think they quit within a year.

...

Interviewer: So is the biggest problem that they quit too quickly?

Respondent: Yes, and they also skip work. That also happens. I wonder why. ... They have low quality. I always feel so.

facilitating the adjustment of migrants to the host society after they arrive. Social networks between newcomers and settled migrants facilitate the job searches of the former, often channeling them into particular industries, occupations, or companies in which co-ethnic workers have a foothold (Portes 1998; Waldinger 1996; Waldinger and Lichter 2003; Waters 1999). This dynamic is particularly apparent in the case of low-skilled migrants, whose workplaces often lack formal admission procedures (Waldinger and Lichter 2003). However, the dynamic of labor migration is virtually absent in the case of the FTTIP, since migrants introduced through this program do not settle, nor are they allowed to change worksites. In this context, it is native-born part-time female workers that mobilize social networks.

Social network recruiting does not solely benefit job seekers. It is also beneficial for employers, allowing them to reduce the transaction cost in the hiring process (Bailey 1987). Seafood processors in Kawai are generally aware of this benefit. For instance, one processor, while noting that its selection criteria of employees involves whether job seekers' "identity is secure," tells that his current employees consist of his relatives and neighbors, and their acquaintances. Another processor points to a different aspect of the advantage of getting workers through network hiring. He states that the benefit of word of mouth "absolutely exists. Especially in small towns like this, there are lots of social ties that can be drawn upon. Taking advantage of them is one way of using them. ... In this way, [employees] get stronger, and last longer, absolutely." Still another processor suggests that he has one employee whose help always asks for when recruiting employees. This processor claims that it is the best way to mitigate conflict among employees:

I have one employee who I ask to recruit workers, since those who are recruited [by her] do as she asks. ... If I bring someone from somewhere else, there is the risk that they will become divided into one of two [employee] groups. If that happens, it may lead to the conflict. Even when I have an applicant, I say, “Go ask that person [the employee recruiter] if you want to work.”

Although social network hiring is certainly useful, it does not mean that this strategy always works in the way that local processors want in the context of the declining local population. Thus, one processor admits that “recruiting up to as many as five people is hard.” Moreover, this sort of recruitment faces an additional difficulty in attempting to secure workers of “good quality.” In such cases, additional effort is required on the part of employers.⁶³

⁶³ The case of one processor reveals how he attempts to secure “good quality” workers, relying upon the social networks of its employees. This processor has serious concerns about the declining population of the town, stating that the “fight over people” will begin among local businesses sooner or later. With this concern, the processor takes an active approach to recruiting workers. The following is how he recruits a new employee:

Respondent: I always ask my employees to let me know information like, “we have such and such person.” If that person is living in this town, I get information about that person, through connections, about what she is like. Then I make a judgment, and take the first step. ...

Interviewer: So you call them?

Respondent: I usually go. ... I do some background checking on her, and then go to her house as the first step.

Interviewer: You go to the house?

Respondent: I go at night....

Nonetheless, as long as new employees can be hired through social network, that makes it possible for local processors to reduce the transaction cost in the recruitment. This is especially important for the seafood processing industry, where the recruitment from the external labor market (that is, the public employment office) often proves disappointing. Network recruitment is a preferred hiring method, and, in the context of the little presence of settled migrants, part-time women take this role in the seafood processing in Kawai.

Limits to the Convenience of Native-Born Workers

The discussion so far has addressed why local seafood processing companies hire native-born workers. But it does not tell why they can do so in the first place. Why is it possible for local seafood processors to hire and secure natives, and use them at their own convenience? I argue that the convenience of native-born workers has certain limitations. These native-born women are not entirely passive subjects to be conveniently exploited by local seafood processors. They also act in ways to help themselves. The employment of native-born workers is possible precisely because employers also make concessions.

Such concessions are apparent in the arrangement of work schedules for native-born workers. As one seafood processor says, for instance, “there is no doubt that family is the top priority [for native-born female employees], so they take time off work, especially when it comes to their children.” In such cases, employers (are expected to) listen to the workers. Thus, according to one processor, “When my employees say that [they cannot make it to work since] they have an athletic event [for

their kids], I say, ‘go ahead.’” Stating that his company is “not a regular, strict company,” another processor also tells that “if [employees] have something else to do, they can take time off work. They say without hesitation, ‘I will be a bit late today’ or ‘I will come in in the afternoon tomorrow.’”

This kind of behavior is not always convenient for employers, and especially not when they expect a larger volume of work. Yet, forcing these native-born female workers to work in the way local seafood processors expect them to is also not easy. One processor speaks to this difficulty, stating, “If I say they must work from 8:00 am to 5:00 pm, they will respond to say, ‘if you say a thing like that, I will leave and work at a nicer place.’” Moreover, it is not just work schedule arrangements that employers often concede to. The following confession by one seafood processor also indicates how employers’ concessions are manifested in the worksite practices as well:

[Part-time female workers] work while chatting. They actually have to work wearing a mask and cap, but ... [they do not]. Well, we handle things that must be grilled for eating, so I do not insist on it.

Thus, it can be argued that a sort of subtle balance has developed between local seafood processors who use their native-born employees at their convenience, on the one hand, and those employees who also act at their own convenience, on the other hand. While the local character of production makes the hiring of native part-time women a preferable employment strategy for many local seafood processors, this strategy also necessitates some concessions to the demands of these workers.

The limits of the convenience of using native-born workers can also be

illustrated by the way in which some local seafood processing companies employ migrants under the FTTIP. According to accounts from local seafood cooperative associations as well as local seafood processors, there are a handful of seafood processing companies that use migrants. They are generally larger in size (they at least have 30 employees), and the production activity is more stable on a year-round basis than the majority of local processors. But these features do not exhaust the reasons why these seafood processors use migrants, especially after 2010 when the FTTIP policy was revised. For these processors, another reason involves the fact that native-born workers are often inconvenient, or inflexible, for their production schedule. Here I introduce the case of two of such companies.

The first case is Hirano Foods (pseudonym), which started to introduce migrants in late 2000s. On one hand, the president of Hirano sites the difficulty of securing native-born female workers in the rapidly aging local labor market as a reason for the company started to use the FTTIP to employ migrants.⁶⁴ On the other hand, as he also admits, this does not mean that this company cannot recruit native-born workers as well. Native-born workers do apply for jobs in his company. Even so, an unstable work schedule which often requires overtime work, coupled with the unpleasant nature of the work, makes it difficult for the company to keep native-born female workers. Specifically, the president states:

⁶⁴ He specifically says: “The biggest reason [to introduce technical interns] is the shortage of female workers. I do not necessarily receive Chinese because I like them. I felt that the issue of labor force would be urgent sometime soon. After all, those who are in their 50s get older and retire, and I cannot catch up with it.”

If I post a job advertisement with the public employment office, well, I get applications. Those who know the nature of the seafood processing last longer, but those who randomly show up do not. I have had many of these kinds of experiences. ... Our company does not always go like, “it’s 5 o’clock now, so see you tomorrow,” since we deal with fish. So, let’s say, we get a lot of boats back on a given day, and we will have to process the fish doing some overtime work. On those days we may work until 5:30 pm. If it extends to 6:00 pm, [employees] can’t prepare dinner (at home), and their husbands will complain. Some employees do leave at 5:00 pm saying they have to. But new workers hesitate to do so and their discontent accumulates. Work hours fluctuate, so their family insist that they work somewhere else that allows them to return home on time. For instance, I used to have an employee from [a nearby town], but after one week or so, she quit. This kind of stuff happens quite a lot in our business.

Besides their paid work outside the home, native-born female workers are also expected to look after their family once they get back home. But Hirano’s work schedule often precludes them from fulfilling this obligation, requiring them to stay until a daily work is finished. This makes it difficult for this company to secure native-born workers, exacerbating the problem of local labor shortages for the company, and leading it to draw upon the FTTIP to secure migrant workers “who come to work” in Japan.

The inflexibility of native workers, and the flexibility of migrants, are also echoed by Sato Seafood (pseudonym), which employed migrants using the FTTIP from around 2005 through 2011. The president recounts, “In the first three, four, or five years, I thought [migrants] were really reliable,” because of both the numerical and functional flexibility of migrants. Regarding the numerical flexibility, Sato states that the production volume has been prone to unanticipated increases due to sudden, random orders from large supermarkets and retail chains. In this case, migrants, rather

than natives, proved reliable for Sato:

Even if I say to an elderly woman [native female employee], “I’ve received a last-minute order, can you work overtime?” they can’t. But [trainees and technical interns] will say “okay” and will work. They were also able to make it to work on weekends.

Migrants also proved functionally flexible to the company, though this functionality still remains in a low-skilled domain. The following instance describes how the numerical and functional flexibility mixes together to prove that migrants are a reliable labor force for Sato.

During [the summer holiday reason], I sent [migrants] to a retail store [that Sato runs] and asked them to attend the customers. They did. They learned to speak some Japanese after a year. [Native-born] part-timers can’t make it to work during this season.

Moreover, these migrants did not solely supplement the role of native workers. The president reports that, in some cases, they do more than what native-born workers do as they learned about the functioning of the company. The following instance symbolizes this point:

After one year, [migrants] learned how to prepare things for shipping, like “this box goes to this city and that box to this city.” So I passed over a daily shipment list to them, and they never failed to distinguish boxes. Japanese part-timers do not like to do it, saying, “I don’t want to do a job that has responsibility”, or “I don’t want to do such a responsible job since I will have to miss work when my kids are sick.” But [migrants] are good at it.⁶⁵

⁶⁵ Nonetheless, Sato stopped using migrants by the time I conducted this interview.

Thus, when the work schedule requires a labor force that is both stable and flexible, native-born workers are less convenient and less reliable, which may lead local companies to draw upon migrants. Nevertheless, in the context of the local seafood processing industry that has failed to petite-industrialize, and has also recently seen a significant decline, there exist very few companies that necessitate such a work schedule. In this context, the vast majority of local seafood processors still draw upon native-born workers, and they make such a hiring strategy possible by also making concessions to these workers.

Absence of Institutional Support

One important outcome of the dependence on native workers of the local seafood processing sector is that there been no institutional support for receiving migrants, that is, a primary organization for the FTTIP, nor has the local seafood processing industry shown collective willingness to create one. The lack of the collective willingness is illustrated in an attempt by the president of Kitano Seafood (pseudonym), another local seafood processor that is using migrants, to create a primary organization in Kawai. Initially, the president hoped and planned to establish a

This is because the company had “trouble” with migrants concerning payment for their overtime and weekend work. The need to guarantee the premium, according to the president, was an additional financial burden for the company that was already paying a monthly management fee of 30,000 yen per migrant (about \$300) to the primary organization. Nonetheless, the president also admits that the company struggled to recruit native-born workers for some time after the dismissal of migrants, and the production volume declined by about 30 percent. Now Sato has somehow secured native-born workers by gathering those who can work on a part-time basis.

primary organization with the initiative of local seafood processors. Perceiving that a labor shortage would be a serious problem in a town that is rapidly aging, he proposed the establishment of a primary organization to a few others in the same industry. He failed to gather support from them, however, because, according to him, “they told me they didn’t need it,” which made him give up on the idea.

This situation stands in sharp contrast to the nature of Yamada’s seafood processing industry. Recall the case of the SPC in Yamada, which established a primary organization for helping its membership companies to receive migrants, preparing a dormitory for migrants as well as an independent department devoted to the local administration of the FTTIP. On the other hand, in Kawai, and possibly in other numerous other seafood processing sites as well, this sort of support is absent. In fact, in many sites, seafood processors wishing to use migrants need to locate and negotiate with a primary organization on their own.⁶⁶ Also, once migrants are introduced, these processors become primarily responsible for managing the lives of the migrants.⁶⁷

In the absence of a locally available institutional support, the perceived burden of bringing in migrants might be greater. Such a sense of burden is expressed by the president of Ito Foods (pseudonym), which is one of the largest local seafood processing companies with a year-round operation. It has about one hundred

⁶⁶ This type of primary organizations is often called an “inter-trade association” (*igyōshu kumiai*), which operates solely for commercial purposes, sending migrants to various industries and businesses.

⁶⁷ One of the processors that bring in trainees and technical interns to work in Kawai relates that a Chinese-speaking staff person from a primary organization visits once a month.

employees, and has never employed migrants. He says that bringing in migrants is a last resort, which he might take when the local labor force becomes completely unavailable. According to him:

Respondent: Processors that have foreigners do not want to talk about the work [of managing them], so I have never heard of it. But I feel like that, once you employ [them], you have to care about their private life. They are not local people, so [satisfying their basic needs] will be a matter of concern.

Interviewer: You mean you will have to look after them?

Respondent: Maybe I won't have to look after them, but, as long as they work as my employees, I would have certain obligations. I don't want to have them. I also think their daily habits will be different.

This company chooses instead to distribute a job advertisement with a newspaper to recruit from a local labor force. This is a method that I did not hear from other local seafood processing companies, including both ones that use migrant labor and those that do not. To be sure, the president is not entirely satisfied with his current employees, as he questions the work ethics of some of his employees. He agrees that migrants would probably work harder, but he does not have an actual plan to use migrant labor. This instance indicates how the absence of local institutional support may contribute to suppressing a potential demand for migrants in the town. Yet the presence or absence of local institutional support is not random, rather, it is shaped by the character of the production system of local seafood processing. In Kawai, this character is not favorable for creating institutional support.

Migrants Not Wanted?

In Kawai, bringing migrants through the FTTIP is too much for the majority of local seafood processors. They still prefer to use native-born workers instead. Given this, however, one may wonder: do local seafood processors not want any migrants at all, or is it a specific type of migrant – trainees and technical interns – that they do not want? What if other types of migrants were available for these processors? In the circumstances in which there are very few migrants in a town, offering a definite answer to this question is not possible. But the experience of the following processor at least provides a possible predicted answer to the question.

The case of Koyama Seafood Processing (pseudonym) is case in point. Koyama is rather exceptional in its employment practice in that it has Filipina migrant workers. Indeed, the president of Koyama says that there is only “one more [processor],” besides Koyama, that hires Filipina migrants in Kawai. This awareness indicates how infrequent this hiring practice is among local processors. But how did it happen?

Having around 20 employees, Koyama differs little from other small-sized local processors in its business situation. It is a crab processing company that mainly uses locally caught raw materials. While it has a year-round operation, the production volume experiences a big decline during the summer. In addition, it has recently experienced a decrease in sales.⁶⁸ Furthermore, while the president certainly thinks

⁶⁸ A following comment is suggestive in understanding the situation of this processor. Asked about if there was any recent technological advancement in the plant, the president replies, “No. Even if I automated, there would be no sufficient volume of raw materials [to process]. Even if raw materials were available, there would be no

that local female workers are decreasing, like other local processors, he has not yet had the idea of introducing technical interns.

Almost by accident this processor first started to employ Filipina migrants. The first Filipina worker in Koyama was a migrant who married one of the neighbors. One day, this Filipina migrant, accompanied by her husband, came to his company, asking him to employ her. The president first declined. He did so because, through an unwarranted rumor, he initially suspected that Filipinos always carry knives and thus was afraid that he would be left “powerless if she wields a knife during work.” But this couple did not give up, repeatedly showing up at his company and asking him to employ her. After being asked several times, he finally decided to hire her.

Soon after hiring her, the president started to employ more Filipina workers. According to him, this is because the first Filipina worker proved to be an honest and hardworking person. He added that, if she had not been, he would not have employed other Filipinas. It has now been several years since he hired the first Filipina worker. At its peak, he employed five Filipina migrants, all married to local men. But, “because of pregnancy or something,” currently, he only has three at the worksite. The president presumes that these migrants know and exchange information with each other, and that it is how one Filipina brings in other co-ethnic workers.

Although numerically limited, these migrants have certainly established a niche in the company. While having initially declined to employ, the president now seems to have changed his way of thinking. Now he states: “They are coming as wives ... from the Philippines, from other areas. It is just like the people who come to Kawai demand in turn.”

from Osaka, Hokkaido, or Okinawa. The only difference is that we cannot communicate.” Yet, the president assessed that the issue of communication did not pose a big problem because of the low-skilled nature of work, which can be “sufficiently mastered in three days.”

This short anecdote suggests the possibility that the local demand for migrants can potentially be expanded. The president of Koyama rejected the request for employment by the first Filipina migrant and his husband due to his unwarranted concern, which perhaps symbolizes the prejudice toward foreigners in Japan that is especially strong in rural towns such as Kawai. He changed his opinions, however, after the first migrant proved to be a useful worker for him, subsequently accepting more migrants. What assisted his new employment strategy were the migrant social networks, which were set in motion once the first migrant entered the company. That eventually brought more migrants into the workplace, the dynamics of which has repeatedly been described in the existing immigration research in the U.S. (Massey et al. 1987; Waldinger and Lichter 2003; Waters 1999).

This situation shows that a larger number of migrants can potentially be desired by and incorporated into the local seafood processing industry in Kawai. Yet it is one thing to have this as a possibility, and it is quite another thing if it will really occur. Perhaps a larger scale migration into Kawai’s seafood processing industry will not occur. First and foremost, this is due to the restrictive Japanese immigration policy that does not easily authorize the entry and settlement of migrants. Moreover, the lack of a strong economic magnet in small towns such as Kawai also makes it difficult to attract a large number of migrants already residing in Japan. As the president of

Koyama stated, there are only “a little more than ten” Filipinas in Kawai. Thus, even though migrants have proved useful for local seafood processors, there is a certain ceiling to the extent to which local seafood processing companies can actually employ these settled migrants.

The establishment of the FTTIP represents an alternative means for businesses to procure migrant workers in the context of the restrictive Japanese immigration policy. Despite an opportunity presented by the FTTIP, however, many local seafood processing companies have chosen not to use the program. Bringing in hard working migrants and employing them for three years straight does not fit well into the local – severely damaged – character of production. In this circumstance, local processors, following their traditional employment strategy, still prefer to hire native-born women, though this strategy is delicately balanced with the demand from these female workers.

Conclusion

In order to better understand how labor migration occurs in the Japanese seafood processing industry, this chapter analyzed how it does not occur. To investigate this issue, the chapter looked at the case of Kawai Town. In this town, the seafood processing industry represents one major local industry, employing about 10 percent of the local labor force. Yet the percentage of migrants in the industry is relatively low, especially compared with Yamada, Chōshi and Ōarai, where the percentage of migrants is higher, despite a similar relative size of the local seafood processing labor force. A lower proportion of migrant workers means a higher proportion of native-born workers. Thus, the chapter explored why and how local

seafood processing companies hire native-born workers.

First, the analysis showed that, in the context of the decline of the local seafood processing industry, in which even securing a stable demand for local products is a pressing issue, seafood processing employers prefer to use native workers, or native part-time women. This is not only because they already represent a cheap labor force, working for (or close to) a minimum wage, but also because they fit well into the production strategies of local seafood processing companies, which prefers a convenient native labor force. I argued that this convenience first of all comes from the flexibility that native female workers provide to employers. I also argued that network hiring that draws upon the social ties of these workers makes it possible for employers to reduce the transaction cost associated with labor recruitment.

While this convenience explains why local seafood processors employ native-born workers, it does not account for why they can do so. In order to address this issue, I pointed out the limitations to the convenience that native-born workers offer. Not only are native-born workers used for the convenience of their employers, but they also act to suit their own purpose. And importantly, in such cases, employers are expected to accept this behavior, making concessions to the demands of their employees. By so doing, they somehow succeed in recruiting and keeping native-born workers. In this sense, it can be argued that the employment of native-born workers stands on a subtle balance between the needs of employers and employees.

While there are relatively few migrants in Kawai's seafood processing sector, to be sure, this may not necessarily mean that local seafood processing companies do not want any migrants at all. In a hypothetical situation in which a large number of

low-skilled, settled migrants are locally available, as suggested by the case of Koyama, local employers might replace native-born workers, instead turning to employing migrants. But this scenario is unlikely given the restrictive immigration regime as well as the scarce economic resources of the town. While, with the establishment of the FTTIP, the Japanese state does present an opportunity to introduce migrant workers, the majority of local seafood processing companies have still refrained, and will continue to refrain, from seizing upon this opportunity in the context of the declining trend of the local seafood processing industry.

Chapter 5.
**New Country of Destination vs. New Destinations in the United States:
Comparing the Demand for Migrants between the Japanese and American Food
Processing Industries**

This chapter introduces an international comparison with the United States. It does so with the aim of understanding whether or not the relative concentration of migrants in petite industrialized production sites is still a unique case as compared to the experiences of labor migration in America since the 1990s, as regards specifically, the geographic dispersion of migrants. This chapter investigates this issue by looking at the U.S. food processing industry – specifically that of the meatpacking and poultry processing, and seafood processing sectors. These sectors have experienced an increasing demand for migrants, and this demand has created a labor migration flow, primarily seen outside some of the large metropolitan centers of the country.

The preceding chapters analyzed how labor migration occurs in the Japanese seafood processing industry. Under the restrictive regime of immigration in Japan, the Foreign Trainee/Technical Intern Program (FTTIP) is one of the few means by which domestic businesses, including the seafood processing ones, are able to import migrant labor from abroad. Due to this opportunity structure of labor migration, migrants are geographically widespread, reflecting the location of the seafood processing sites. At the same time, migrants are concentrated where the local industry is petite industrialized, in which there is the need for a stable labor force on a year-round basis, and for which trainees and technical interns are a desirable labor force.

This pattern of labor migration is certainly very different from the dominant pattern of labor migration observed in migrant-receiving Western societies, especially

in the United States. In the Western contexts, low-skilled labor migration is typically an urban phenomenon (Bauder 2006; Schiller and Simsek-Caglar 2011; Waldinger and Bozorgmehr 1996). A large number of legal as well as illegal migrants are attracted to large urban centers (such as New York and Los Angeles) by purportedly rich economic opportunities (Sassen 1988), the availability of co-ethnic or family support (Massey et al. 1987; Waldinger 1996; Waldinger and Lichter 2003; Waters 1999), or both, creating a concentration of migrants in both relative and absolute terms. In many cases, labor migrants are incorporated into the metropolitan labor markets because they offer contingent and cheap labor for the postindustrial urban economy (Bonacich and Appelbaum 2000; Fernández-Kelly 1991; Milkman, Gonzales and Narro 2010; Morales 1983-1984), which now demands increasing flexibility in production and labor process (Harvey 1990).

While the pattern of labor migration in the Japanese seafood processing sector is certainly different from this general pattern, is it also unique in light of the new dynamics of labor migration in the West? By the new dynamics of labor migration, I mean the growing dispersion of labor migration from large metropolitan centers since the 1990s, including migration to small-metropolitan and non-metropolitan areas (Jentsch and Simard 2009). In this respect, nowhere are these dynamics more salient than in the United States, where Latino migrants, especially Mexicans who now represent the largest migrant group in the U.S.,⁶⁹ have increasingly relocated to

⁶⁹ In 2010, for instance, there were approximately 11.7 million Mexican migrants residing in the United States, representing about 29 percent of the total foreign population in the country, and close to 4 percent of the total U.S. population (Stoney and Batalova 2013).

various parts of the country. Mexican migration has been occurring in the United States for over a century. Until the 1980s, their destinations had been limited to a few so-called gateway or traditional-destination states. Thus, as late as 1980, three states – California, Texas, and Illinois – were home to 83 percent of all Mexican migrants residing in the United States (von Scheven and Light 2012).

Nonetheless, since the 1990s, these migrants have increasingly departed from or have avoided migrating to these traditional destination states. They began to relocate to other regions of the country, the South and the Midwest in particular. This change is observed in the rapid increase of the Mexican migrant population in non-gateway states between 1990 and 2000, including, for example, by more than 800 percent in Georgia; between 500 and 600 percent in Iowa, Indiana, and Nebraska; by more than 1,000 percent in Arkansas, and Minnesota; between 200 and 400 percent in New York, Pennsylvania, Washington, and Wisconsin; and by more than 1,800 percent in North Carolina, Tennessee, and Alabama (Zúñiga and Hernández-León 2005a). To be sure, this dramatic growth rate is partially a function of the fact that the Mexican population was rather small until 1990 in those states. Thus, gateway states, especially California, still remain primary destinations for migrants, receiving the largest number of them in the absolute terms. Even so, due to the growth of the Mexican population in non-traditional destination states, the share of Mexican migrants living in gateway states has recently shrunk. Thus, in 2000, the three gateway states mentioned above contained 70 percent of the foreign-born Mexicans in the U.S., and, by the year 2009, this percentage had been further reduced to 63 percent (von Scheven and Light 2012).

In addition, the growing dispersion of Mexican migrants has also resulted in

the growth of the Latino population in non-metropolitan areas. Certainly, Latinos, including Mexican migrants, still remain the most urbanized ethnic/racial group in America, with over 90 percent of them living in metropolitan areas in 2000 (Kandel and Cromartie 2004). Nevertheless, the Latino population in non-metropolitan areas doubled between 1980 and 2000 (1.5 to 3.2 million), which accounted for over 25 percent of the total non-metro population increase (Kandel and Cromartie 2004). The growth of non-metro Latinos has been especially prominent in the Midwest and South. Thus, while until 1990 the vast majority of non-metro Latinos had been concentrated in the Southwest, including agricultural towns in California, currently, over half of them reside outside the Southwest (Kandel and Cromartie 2004).

Accordingly, while Japan has risen to be one of the “new countries of destination” (Freeman and Mo 1996) for migrants since the 1990s, at the other end of the Pacific, the United States has witnessed the emergence of “new destinations” (Zúñiga and Hernández-León 2005b) for migrants within its borders.

Among the differing explanations as to why such a large scale dispersion has happened, most researchers agree that there has been a growth of low-wage jobs in non-traditional destinations (Brick, Challinor and Rosenblum 2011; Leach and Bean 2008; Parrado and Kandel 2008; Portes 2009; von Scheven and Light 2012).⁷⁰ The

⁷⁰ While other explanations also exist, they are not mutually exclusive. They mostly specify conditions other than those in new destinations. Such explanations include, for instance, the implementation of the amnesty program of the Immigration Reform and Control Act (IRCA) of 1986 (Durand, Massey and Charvet 2000; Hernández-León and Zúñiga 2000), the intensifying border enforcement in traditional destination states (Massey and Capoferro 2008), the economic recession and increasing cultural intolerance vis-à-vis migrants in California (Durand, Massey and Charvet 2000), and the saturation of housing and job opportunities for migrants in traditional destination

work that attracts migrants in non-traditional migrant-receiving areas varies by location, involving not only urban service and construction jobs in the growing metropolitan cities of the South (Johnson-Webb 2003; Kochhar, Suro and Tafoya 2005) but also jobs located in rural areas such as in the textile manufacturing in Dalton, Georgia (Hernández-León and Zúñiga 2000), the mushrooming in Kennett Square, Pennsylvania (Shutika 2005), and the oil extraction and refinery plants in Louisiana's coastal areas (Donato and Bankston, III 2008).

However, among diverse industries, the one that the now-burgeoning literature on migrant new destinations has found as among the most prominent in attracting migrants to non-traditional destinations is the food processing industry, especially the meatpacking and poultry processing industry (Grey 1999; Kandel and Parrado 2004; Kandel and Parrado 2005; Marrow 2011; Martin 2009; Ribas 2012; Striffler 2005; Stull and Broadway 2004; Stull, Broadway and Griffith 1995) as well as the seafood processing sector (Griffith 2006; Selby, Dixon and Hape 2001). New-destination scholars have now documented the rapid growth of migrants in small cities and towns in the South and Midwest due to the demand for migrants in the food processing industry. These instances include, to name a few, the meatpacking industry in Garden City, Kansas (Stull and Broadway 2004), and Marshalltown, Iowa (Grey and Woodrick 2002), the poultry processing sector in Gainesville, Georgia (Guthey 2001), and the crab processing industry in the coastal areas of North Carolina (Griffith 2006).

In Japan, the seafood processing sector has produced labor migration flow outside of large urban centers. In the United States as well, the food processing

states (Light and von Scheven 2008).

industries have drawn labor migration streams away from the traditional destinations of Mexican migrants, including such metropolitan cities as Los Angeles and Chicago. Aside from this ostensible similarity, however, what explains the demand for migrants in the case of the United States? The relative concentration of migrants in the petite industrialized seafood processing sites is an outcome of the adaptation of the seafood processing businesses to the Japanese opportunity structure of labor migration. Yet, despite these similarities, the outcome may be different in the U.S., especially given the industrial character of the U.S. food processing industry (as will be described below) as well as the U.S. structure of the opportunity of labor migration. This chapter addresses this issue.

This chapter finds that the demand for migrants caused by petite industrialization in Japan still differs from the new labor migration experiences in the United States. Specifically, in the case of the U.S. meatpacking and poultry processing sector in the Midwest and South, it is what I call “peripheral industrialization” that characterizes the cause of the demand for migrants. The industrialization undertaken in the U.S. meatpacking and poultry processing is a *bona fide* one, which is both much more extensive (in terms of scale) and intensive (in terms of technological development). Large meatpacking and poultry processing companies in the U.S. pursue this industrialization strategy in the “periphery” of the country, or rural areas. These companies take advantage of an ample supply of low-skilled labor migrants, both legal and illegal, in the country for fulfilling their labor demand, attracting and offering them the jobs that are, though dangerous, year-round and relatively better paid compared to low-skilled employment in other industries.

In the case of the seafood processing industry in the South, what I call “periodic intensification” explains the demand for migrants. The local seafood processing companies are typically small or medium in size, and the operation is seasonal. In order to fulfill the need for cheap labor in the periodic nature of production activity, local seafood companies now draw upon the H-2B visa program – a *de jure* temporary migrant worker program in America – that authorizes the use of migrant labor for seasonal, non-agricultural, and low-skilled work.

Meatpacking and Poultry Processing: Peripheral Industrialization

The U.S. meatpacking and poultry processing sectors are the two most renowned cases that are attracting migrants to non-traditional destinations in the Midwest and South. Behind the increase of migrants in these industries lies the peripheral industrialization of these industries.⁷¹ This large scale industrialization has incorporated migrant labor by offering legal and illegal migrants the jobs that are dangerous but generally stable and relatively better paid.

While the meatpacking and poultry processing sectors have both had similar experiences with the incorporation of migrants, the pathway that these two industries

⁷¹ In the sociological literature, because of the popularity of the world system theory (Wallerstein 1995), the term “periphery” may often invoke the idea of a geographically uneven development at the international level. Though I do not intend to directly speak to this line of thought, here I point out that it is erroneous to assume a single homogenous space within the nation-state. The United States, for instance, is differentiated within its borders, evidencing differential degrees of economic development. If large urban centers – or global cities – represent the core of postindustrial America, rural areas that struggle to reap the benefit of national economic growth may be denoted as the “periphery” of the country. It is in the latter where the industrialization of the meatpacking and poultry processing has occurred, as shown below.

have followed differs. The case of the meatpacking sector illustrates how the postwar restructuring of the industry is also accompanied by the transformation of the labor market, from the first to secondary labor market. Here, I will show the transformation of the meatpacking and poultry processing sectors, respectively. Then I will address how the meatpacking and poultry processing industries incorporate migrant labor within the U.S. opportunity structure of labor migration.

Meatpacking

One defining character of the meatpacking industry among American food processing sectors is that, along with other basic industries of the country such as the automobile and steel sectors, this industry had established a mass production system by the first quarter of the last century. Indeed, the invention and introduction of the “disassembly” line of this industry came so early that it provided a production model for Ford’s assembly line (Hounshell 1984). In this early era, the production facility of the industry was principally located in industrializing Midwestern cities, most notably Chicago, which was also a midpoint between the livestock-producing western Midwest and the big consumer market in the East coast. A handful of large companies, known as the Big Four or the Big Five, dominated the industry. Having large companies pursuing the industrialized production system, according to Skaggs (1986), “By [World War I], American meatpacking was among the nation’s largest contributors to the gross national product (90).”

It is primarily since the 1940s, with a large scale organizing drive led by the Congress of Industrial Organizations (CIO), that wages and work conditions improved

in the industry. While the establishment of the industrialized production system generated a demand for an unskilled labor force, previously, the industry operated by absorbing migrants from Eastern and Southern Europe as well as African Americans from the U.S. South who were often introduced as strikebreakers (Bonacich 1972; Skaggs 1986). Although work in the meatpacking industry was, and has been, hard and dangerous, in the earlier era, labor conditions were also characterized by low pay, long hours, and abusive treatment of workers, which Upton Sinclair's famous 1906 novel *The Jungle* vividly describes.

However, the formation of an industrial union for meatpacking workers in the CIO and its successful bargaining with large oligopolistic firms led to master agreements with these firms, bringing in improvements in wages, work conditions, fringe benefits, and seniority for workers (Horowitz 1997). Thus, according to Craypo (1994), "By the 1960s, the Meatcutters and the Packinghouse Workers had largely organized beef packing and had established strong wage patterns. Wages were 26 percent above the average for nondurable manufacturing (63)." Because of the successful unionization, as Horowitz (2002) informs, "While meatpacking remained a hard and dirty job, packinghouse workers were able to enter America's blue collar middle class and purchase homes, new cars, take vacations, and enjoy ... 'better things in life' (32)."

Principally since the 1970s, however, the meatpacking industry has gone through a series of restructuring. Its origin can be traced to a then-newcomer firm: Iowa Beef Processors (IBP) (part of Tyson Foods since 2001), established in 1960. Several new strategies that IBP initiated later on offered a "role model" for the entire

industry, eventually resulting in the peripheral industrialization that would subsequently generate an increasing demand for migrants by the 1990s. The restructuring of the industry mainly occurred in three dimensions, which include: (1) the change in production sites, (2) the development of the production process, and (3) the anti-unionization.

The first transformation involves the shift in production locations from urban to rural areas in the Midwest such as in Kansas, Nebraska, and Iowa. This strategy had certain benefits. First of all, assisted by improved highways and the rise of the trucking industry, locating production facilities close to the feedlots for livestock made it possible to reduce production costs (Skaggs 1986). Second, putting the facilities in rural areas further enhanced the cost reduction created by doing away with a unionized urban labor force (Arnould 1971). Third, it is also important to note that local officials looking to bring in more industries and businesses also supported this strategy by giving meatpacking companies tax concessions, a strategy that is analogous to the one used by developing, or “peripheral,” countries to attract foreign investment (Fröbel, Heinrichs and Kreye 1980). For instance, in the case of IBP’s plant in Garden City, Kansas, established in the early 1980s, county commissioners offered \$3.5 million in property tax relief for 10 years and helped finance plant constructions with \$100 million in industrial revenue bonds (Broadway 1995). In Storm Lake, Iowa, when IBP acquired a closed local plant in the early 1980s, the city gave the company over \$1.9 million in tax incentives and a \$9.5 revenue bond (Hedges and Hawkins 1996). They did so in the regional context of stagnating economic prosperity (Davidson 1996), which was also marked by the out-migration of locals (Carr and Kefalas 2009). As a

result, between 1963 and 1984, the number of meatpacking workers in urban areas fell by more than 50,000, while the proportion of workers in rural plants increased from 25 to 50 percent (Horowitz 2002).

The second transformation is the development of the production process. There are four types of development involved. The first is, as seen in IBP's plants, the construction of a single story plant that specializes in slaughtering single species of livestock, as opposed to previous packinghouses that were typically multi-story, slaughtering and processing multiple types of livestock. The second is the consolidation into large plants. For instance, while, in 1963, plants with over 400 employees accounted for 31 and 66 percent of the total value shipment of cattle and hog slaughtering, respectively, this percentage increased to 72 percent and 86 percent in 1992 (MacDonald et al. 2000). The largest meatpacking plants frequently employ over 1,500 workers (Stanley 1992). The third is the creation of the added-value product – boxed beef – that IBP first invented in its second plant in Dakota City, Nebraska, established in 1967. Rather than solely fabricating carcasses, IBP further cut up the meat and packaged it in its own plants, eliminating the necessity of skilled butchers in retail stores and supermarkets. By 1989, boxed beef made up over 80 percent of the beef sales in the United States (Warren 2007).⁷² The fourth involves the mechanization of the production process. Reflecting the nature of dealing with livestock, the meatpacking industry has not attained automation levels comparable to those seen in other large scale manufacturing industries (and thus remains more labor

⁷² In 1982, IBP also began boxed pork production, applying the same technology to pork (Broadway 1995).

intensive). Within these limitations, though, a certain degree of mechanization has been achieved, eliminating the need for skilled labor. As Warren (2007) succinctly summarizes:

After World War II, many packers had introduced mechanical stunners, stainless-steel conveyers, power-driven overhead chains, forklift tractors, skinless pork sausage-making machines, vacuum packaging of luncheon meats, and automated packaging of various processed meats and lard. Many had also introduced motor-driven knives and bandsaws for making large cuts in carcasses. IBP and its followers systematized and integrated all these technologies into their operations, including, more recently, the widespread use of circular electric knives, commonly called whizards, that allow workers to make powered cuts on much smaller pieces of meat (24).

The result of all of these developments has been an increase in production efficiency. For instance, Carnes (1984) finds that, during the period between 1967 and 1982, the productivity of the meatpacking industry, as measured by output per hour, increased at an average annual rate of 2.8 percent, and from 1976 forward, the rate accelerated to 3.2 percent. This is contrasted with the comparable figures for manufacturing that were lower, 2.4 and 1.6 percent, respectively (Carnes 1984).

The third transformation is an anti-union strategy. Again, IBP took the lead. Unionization at IBP plants proved ineffective through the 1960s and 70s, in which the company conceded to authorize the presence of the union but without the coverage of master agreements. Since the late 1970s, IBP took a more aggressive stance toward unionization, which involved the closing of unionized Iowa plants and the building of new plants elsewhere else. This approach also allowed IBP to draw concessions from existing unionized plants, as seen in the aftermath of the strike in its Dakota City plant

in 1977, in which the new agreement actually increased IBP's advantage (Horowitz 2002).

Witnessing its market position declining with the growing presence of IBP, the former meatpacking giants followed suit in the early 1980s. The parent company of Swift, for instance, sold their meatpacking plants to a newly established company, Swift Independent, which reopened Swift's previously closed plants on a non-union basis. It also closed formerly unionized plants, and acquired Armour's plants that operated on a non-union basis (Horowitz 2002). Wilson declared bankruptcy, repudiated its union contract, and then cut wages by 40 percent. Armour, by then owned by Greyhound, closed their plants and then sold them to ConAgra, which reopened them and hired a nonunion labor force (Broadway 1995). A series of shakeouts in the early 80s caused a significant erosion of master agreements, and with that, "forty-five years of unionism in the Big Four firms had ended" (Horowitz 2002: 35).⁷³

An immediate consequence of the union decline was the deterioration, or "the Great U-Turn" (Bluestone and Harrison 1988), of labor compensations and conditions. This is first and foremost manifested in the decline in wages. As Table 5.1 indicates, from the late 1950s to the early 80s, the average earnings of meatpacking production workers was consistently more than 10 percent higher than the average manufacturing

⁷³ Another important change that has prominently occurred since the 1980s is the acquisition of many meatpacking companies by giant agribusinesses, which led to the emergence of "new Big Three" (Warren 2007) in the industry. In 1997, for instance, the "four-firm concentration ratio," which indicates the proportion of total production controlled by the four largest companies, accounted for 80 and 54 percent for beef and pork, respectively (MacDonald et al. 2000).

workers. Meatpacking wages began to erode after that, and, in the early 2000s, the average earnings of meatpacking workers were more than 30 percent lower than the earnings of average manufacturing workers.

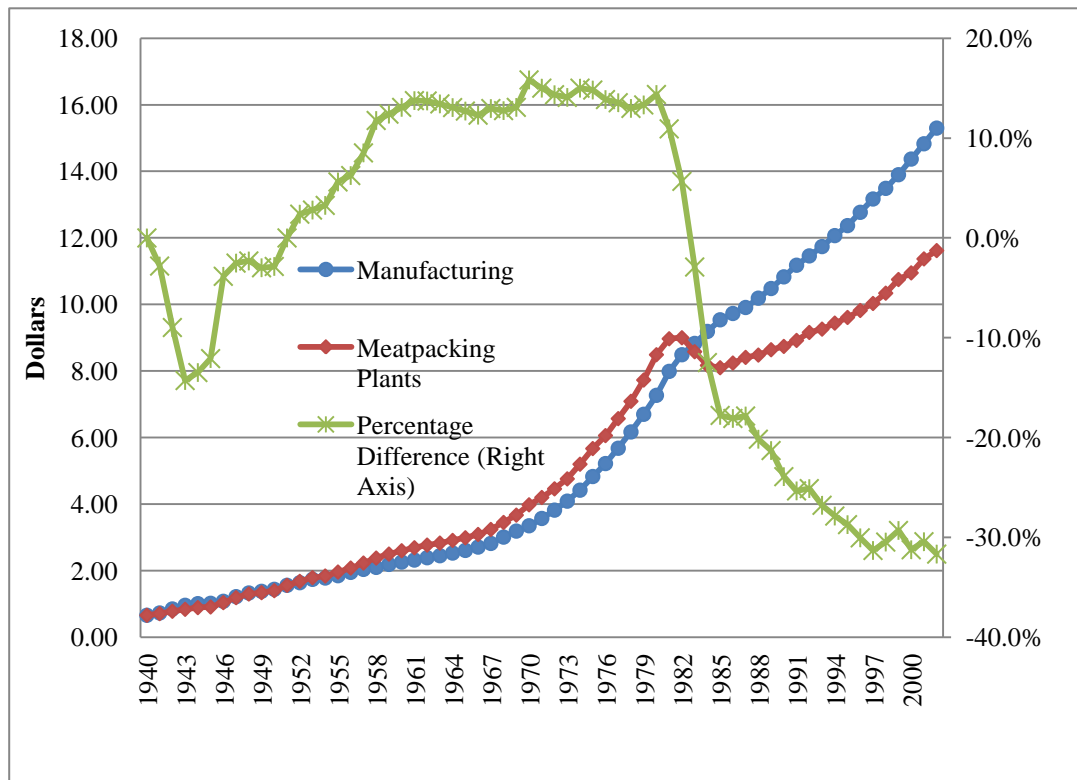


Figure 5.1: Average Hourly Earnings of Meatpacking Production Workers, 1940-2002.
Source: Created by the author from data from the U.S. Bureau of Labor Statistics (1940-2002)

While wages declined, working conditions deteriorated, which is demonstrated by the increase of the line speed (Craypo 1994; Stull and Broadway 1995). To use one example, in IBP's plant in Dakota City, which is unionized, the speed increased by 125 percent between 1969 and 1994 (Hedges and Hawkins 1996).

Because of this, the meatpacking industry still remains one of the most dangerous jobs in America, showing a high occupational injury and illness rate that is more than double that of the manufacturing average since the mid-1970s (see Table 5.1). With these dangerous as well as unpleasant working conditions, it is not surprising that the turnover rate is high in this industry. Estimates of annual employee turnover range from 60 to 140 percent, and even higher in some cases (Kandel and Parrado 2005). Hence, in the U.S. meatpacking industry, while a large scale industrialization was implemented in rural, or “peripheral,” areas of the Midwest, it also caused the “downgrading” of the labor market, from the first to secondary one, which is marked first and foremost by the deterioration of wages.

Table 5.1: Occupational Injury and Illness Rates for Production Workers, 1975-1999.
Source: Stull and Broadway (2004: 76)

	Meatpacking	Poultry Processing	Manufacturing
1975	31.2	22.8	13
1980	33.5	22.1	12.2
1985	30.4	18.3	10.4
1990	42.4	26.9	13.2
1995	36.6	18.3	11.6
1999	26.7	14.3	9.2

Poultry Processing

The industrial development of poultry processing followed a different pathway from that of the meatpacking industry. Yet, today, this industry has created a demand for migrants in the same way that the meatpacking industry has. Three

differences are worth mentioning. First, unlike meatpacking, raising chickens for meat was hardly a central business until the mid-1920s (Kim and Curry 1993). Second, there have been no significant plant relocations during the postwar development of the industry. Rather, production activity has historically been located in rural areas of the South, with Arkansas, North Carolina, Georgia, and Alabama being the largest production sites (Broadway 1995). Third, in the poultry processing sector, no large scale unionizing drive has been developed that is comparable with that of the meatpacking industry. With the absence of a strong legacy of unionism, as Figure 5.2 shows, average earnings in this industry have been consistently lower than the average in the entire manufacturing.

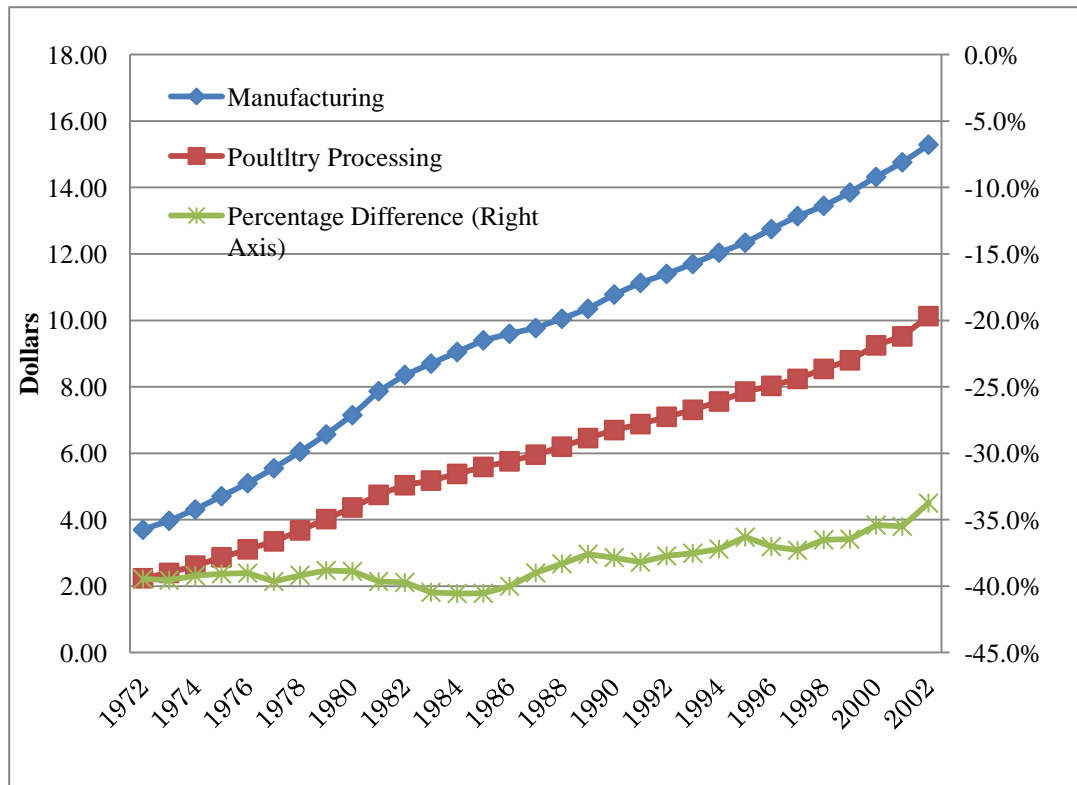


Figure 5.2: Average Hourly Earnings of Poultry Processing Production Workers, 1972-2002. Source: Created by the author from data from the U.S. Bureau of Labor Statistics (1940-2002)

Despite these differences, the poultry processing sector has also currently incorporated a large number of migrants into its large scale industrialized production system. What has gone in parallel with this development is the growing popularity of the consumption of chicken in the postwar era. For instance, in 1928 when Herbert Hoover promised “a chicken in every pot,” each American consumed, on average, half a pound of chicken annually; in 1945, the figure stood at about 5 pounds a year, and 50 years later, the figure reached to almost 70 pounds (Boyd and Watts 1997). By the late 1990s, the per-capita consumption of chicken had surpassed that of red meat in the

United States (Ollinger, MacDonald and Madison 2000). The growing demand for chicken also influenced the demand for labor. In fact, “Between 1972 and 2001 employment in the beef and pork processing industry increased only modestly from 240,400 to 253,100, while employment in the poultry processing industry jumped from 106,600 to 258,200” (Kandel and Parrado 2005: 453).

Increasing awareness of the health risks associated with red meat consumption, which has become prominent since the late 1970s (Kandel and Parrado 2005), stands out as one important reason for the growing popularity of chicken consumption. But another equally important reason involves the advancement of the industrialization of poultry processing, and the concomitant decline in the retail price of poultry, after the Second World War. Thus, while, a century ago, steak and lobster were cheaper than chicken (Boyd and Watts 1997), in 1960, the retail price of chicken reduced to about half of that of beef, and further reduced to about one third in 1999 (Ollinger, MacDonald and Madison 2000).

The development of the large scale industrialization of the poultry processing can be grasped in two senses. The first is the vertical integration of the production involving co-ordination between growers, hatchery, feed mills, and processing plants, which contributes to the stabilization of production.⁷⁴ Assisted by innovations in genetics and poultry management techniques,⁷⁵ this system transformed “the lowly

⁷⁴ Under this system, poultry processing companies secure and provide chicks, feed, medicine, and other items for independent chicken farms, while dealing with processing and marketing chickens on their own.

⁷⁵ The sophistication of broiler production is indeed remarkable. “Between 1935 and 1995 the average market weight of commercial broilers increased by roughly 65 percent, while the time required to reach market weight declined by more than 60

chicken into one of the more thoroughly industrialized commodities in American agriculture” (Boyd 2001 cited from Striffler 2005: 46).

Second, the pursuit of production efficiency also occurred within the processing sector itself. This can be observed in the share of chicken produced in large plants (those with more than 400 employees). In 1967, chicken produced in those large plants accounted for 29 percent of the total value of the shipment. In 1992, the figure increased by almost triple to 88 percent (Ollinger, MacDonald and Madison 2000). Largest plants now have the capacity to process 5,400 birds an hour (Broadway 1995). Also, a value-adding strategy, coupled with the popular trend of “food convenience,” also reorganized the production process, producing cut-up and deboned chicken. In 1963, the poultry processing sector principally meant the production of a whole chicken, which accounted for 85 percent of total poultry sales. In 1997, however, this proportion was completely reversed, with cut-up and deboned meat accounting for about 87 percent of the total product (Ollinger, MacDonald and Madison 2000). In the process of the industrialization of poultry processing, the concentration of capital has also occurred. In 1992, the “four firm concentration ratio” (see footnote 73) in chicken processing accounted for 41 percent of the total business, a significant increase since the early 1960 when it solely made up 14 percent of the business (Ollinger, MacDonald and Madison 2000). Tyson Foods, which also acquired IBP in 2001 so as to enter the meatpacking industry, stands as a giant in this business, with 120,000

percent and the amount of feed required to produce a pound of broiler meat declined by 57 percent. In short, a commercial broiler from the 1990s grew to almost twice the weight in less than half the time and on less than half the feed than a broiler from the 1930s.” (Boyd 2001 cited from Striffler 2005: 46).

employees at 130 locations (Martin 2009).

In the case of the poultry processing sector, industrialization has primarily occurred in the rural South, which may be called a “peripheral” area of the country. This region is the largest site for broiler production, which has partially been made possible by the availability of poor, marginal farmers for raising chickens (Broadway 1995). In addition to the proximity to broiler production, the poultry processing industry was initially drawn to the South because of low labor costs made possible by “a resident labor force of African Americans and poorly educated ‘hillbillies’ from the Appalachians and the Ozarks” (Griffith 1995a: 130). In the region where rural poverty is heavily concentrated (Duncan 1992), the economic benefits of having processing plants locally are often seen as grounds for the lax enforcement of environmental regulations. One poultry processing company in northern Georgia, for instance, dumped waste from its plants directly into creeks that eventually flowed into a lake that provided a major source of drinking water. While the state government cited the company for its violation, it also allowed the company to operate on the grounds that if the plants were closed, the community would lose jobs (Broadway 1995).

Incorporating Migrants

I argue that peripheral industrialization explains the demand for migrants for the U.S. meatpacking and poultry processing industries. Unlike the industrialization of the Japanese seafood processing that is “petite,” the scale of this industrialization is more extensive in magnitude and intensive in the degree of technological development. On the other hand, large meatpacking and poultry companies consciously chose to

develop the industrialization strategy in the “peripheral,” or rural, areas of the country. These areas not only provide a quick access to livestock but are also often willing to invite in or keep these industries local for the sake of improving or maintaining local economic well-being. Thus, if the overall trend of the U.S. economy since the 1970s is denoted as “deindustrialization” (Bluestone and Harrison 1982), in the case of meatpacking and poultry processing, the tendency is the opposite. The significance of these industries in the U.S. and beyond is manifested in the drastic increase in the volume of meat exports during the three decades starting from 1970 (Table 5.2). The United States has a trade surplus in meat (Martin 2009), with Japan being one of major importers of U.S. meat.

Table 5.2: U.S. Meat Exports, 1970-2000. Source: Kandel and Parrado (2005: 454)

	(millions of pounds)		
	Beef	Pork	Chicken
1970	40	83	94
1980	175	252	567
1990	1,006	243	1,143
2000	2,328	1,167	5,548

But the U.S. meatpacking and poultry processing sector also has something in common with the manufacturing that has gone abroad; they also count upon a “*global reserve army of labour*” (Bourdieu 2002) for their production. For this, meatpacking and poultry processors take advantage of an ample supply of migrant labor in the

country, both legal and illegal.⁷⁶ Previous scholarly and journalistic accounts point out the efforts of meatpacking and poultry processing companies to bring migrants in to non-traditional destinations where their plants are located (Hedges and Hawkins 1996; Stanley 1992), one of which, for instance, involves IBP's recruitment of migrants in Texas (Hedges and Hawkins 1996).

Others also reveal the importance of social networks among migrants, often finding well-established networks between new destination towns in the United States and sending towns, such as the connection between Marshalltown, Iowa, and Villachuato, Mexico (Grey and Woodrick 2002), or between Storm Lake, Iowa, and Santa Rita, Mexico (Hedges and Hawkins 1996). In some cases, meatpacking companies actively attempt to take advantage of migrants' networks, offering a bonus to migrants who bring new employees to their plants (Stanley 1992).

Though working conditions are unpleasant and dangerous, meatpacking and poultry processing wages are still relatively high compared to low-skilled employment in other industries (Kandel and Parrado 2005). Offering year-round work and a chance for (though limited) promotion, meatpacking and poultry processing jobs also enable some migrants, especially legal ones, to achieve a certain degree of upward mobility (Marrow 2011).

Thus, in the case of the U.S. meatpacking and poultry processing sector, the large scale industrialization of the periphery of the country created a large demand for

⁷⁶ An exact percentage of illegal migrants in the meatpacking and poultry processing is unknown. However, for example, the research conducted by the General Accountability Office in the late 1990s estimated that about 25 percent of the meatpacking labor force in Iowa and Nebraska consisted of illegal migrants (U.S. General Accountability Office 1998).

low-skilled labor, attracting migrants with a large supply of migrant labor, thereby contributing to the geographic dispersion of migrants in the contemporary U.S.⁷⁷

Statistical Interrogation

Thus far, I suggested that industrialization is important for understanding the way in which the meatpacking and poultry processing industry generated the demand for migrants in the rural Midwest and South. To the extent that this is actually the case, then, we should find a significant relationship between the local productivity of meatpacking and poultry processing production and the demand for migrants. Here, I conduct a statistical examination to address this issue, running a regression analysis similar to the one that is conducted in Chapter 2. In order to construct a dataset for this analysis, I use the American Community Survey (ACS) 2005-2009 5-Year Sample (Ruggles et al. 2010), which is a 5% representative data of the population of the United States surveyed by the U.S. Bureau of Census, and the 2007 Economic Census (U.S. Census Bureau 2007). The unit of analysis is a geographic one: Consistent Public Use Microdata Area (Conspuma), designated by ACS.⁷⁸ The dependent variable is the percentage of migrants (defined as the foreign-born) in the “animal slaughtering and processing” industry in Consputma, which includes both meatpacking and poultry

⁷⁷ A potentially interesting question on this point may be whether or not meatpacking and poultry processing companies had a concrete plan of bringing and using migrants in creating restructuring strategies, with the awareness of an ample supply of migrant labor in the U.S. immigration regime.

⁷⁸ ACS as well as U.S. Census does not provide geographic data that identifies cities and towns in non-metropolitan areas. In ACS, Consputma is the most detailed geographical areas that can be consistently identified across samples from 1980 onward.

processing.⁷⁹ I created this variable from ACS. The fact that the ACS 5-Year Sample is a 5% representative dataset casts doubt on the accuracy of the dependent variable in Conspumas where the total number of employees in the animal slaughtering and processing industry is small. For this reason, I only include cases where at least 1,000 animal slaughtering and processing employees are identified in the weighted sample of ACS.⁸⁰ This produced a total of 99 cases for the analysis.

The independent variable of primary interest is the local productivity of the animal and slaughtering and processing industries, which was created from the 2007 Economic Census (U.S. Census Bureau 2007). Specifically, I use the value of shipments per production workers' hour, measured by dollar amounts, as a proxy for productivity. It is assumed that the higher value of this variable signifies higher productivity. If the demand for migrants is particularly concentrated where the local meatpacking or poultry processing has achieved an industrialized production system, the productivity variable should show a positive association with the percentage of migrants in the industry. This should be the case even after other local factors (such as the local unemployment rate and the proportion of the animal slaughtering and processing labor force of the entire local labor force) are controlled. Given the difference in the value per weight between red meat and poultry, and the concentration of poultry processing plants in the South, in the analysis, I also add a regional variable

⁷⁹ This industrial category corresponds to the North American Industry Classification System (NAICS) code 3116.

⁸⁰ Since the dataset is a 5% sample, this means that, in these cases, at least about 50 employees were actually sampled and included in the unweighted dataset.

(whether or not being located in the South) as a control variable.⁸¹

Table 5.3 shows the result of OLS regression analysis on determinants on the percentage of migrants in the local animal slaughter and processing industry. Among seven independent variables, four are statistically significant. The positive effect of the % of Migrants in 1990 is a reminder that migrants are more likely to be concentrated where larger migrant communities have already been established, such as cities in California. The positive effect of the % of Service Industries may indicate that the greater availability of service jobs leads to the greater difficulty for local meat and poultry processors to secure a native-born work force. The % of Animal Slaughtering and Processing signifies the relative share of employment in this industry as part of the entire local labor force. The positive effect of this variable means that migrants are more likely to be found in localities where the animal slaughtering and processing industry is a major local employer.

⁸¹ As for other control variables, the hourly wage of production workers in the animal slaughtering and processing sector is created from the Economic Census (U.S. Census Bureau 2007). The rest of control variables are taken from the ACS 2005-2009 5-Year Sample (Ruggles et al. 2010).

Table 5.3: OLS Regression for the Percentage of Migrants in the Animal Slaughtering and Processing

	Coef.	S.E	
Intercept	-50.431	34.51	
% of Migrants in 1990	1.845	0.29	***
Unemployment Rate (%)	-1.474	0.95	
% of Service Industries	0.807	0.30	**
% of Animal Slaughtering and Processing	4.086	1.05	***
Hourly Wage of Production Workers in Animal Slaughtering and Processing (\$)	0.236	1.84	
South (=1)	-1.896	4.59	
Value of Shipment per Production Workers' Hour (\$) [Productivity]	0.119	0.04	**
Adjusted R ²	0.575		
# of Case	99		
Notes:			
* p<0.05, ** p<0.01, *** p<0.001 (two-tailed test)			

It is certainly tempting to attribute the cause of the high percentage of migrants in the meatpacking and poultry processing industries solely to the local share of the employment in these industries in new destinations, given the large scale operation of these industries in rural areas. However, the effect of the Productivity variable tells us that this is not the entire story. Even with other independent variables controlled, the productivity variable still shows a significant effect on the percentage of migrants in the local animal slaughtering and processing industry. Moreover, the effect is positive. This result lends partial credit to the argument that, among all meatpacking and poultry processing sites in the United States, the ones that have a more industrialized production system are more likely to incorporate migrants, with

migrants being brought through corporate recruitment or migrant social networks.

But, it is still necessary to give one caution. That is, the aforementioned results do not clearly tell us whether this is an indicator of the importance of productivity (thereby industrialization) creating a demand for migrants, or if the productivity increases precisely because of the presence of migrants. In order to interrogate this issue, here, I also investigate whether or not a similar result may be obtained in other manufacturing sectors as well. If the presence of migrants always enhances productivity in a way that is discernible in the statistical analysis, we should observe a significant association between the productivity and the percentage of migrants in other cases as well. On the other hand, if it is only the animal slaughtering and processing industry that shows such an association, I may conclude that high productivity is certainly a cause of the high percentage of migrants. I address this issue by looking at three manufacturing industries in the United States. These are: (1) Transportation Equipment Manufacturing (NAICS 336), (2) Cut and Sew Apparel Manufacturing (NAICS 3152), and (3) Computer and Peripheral Equipment Manufacturing (NAICS 3341). Conceptually, they respectively represent: (1) one of the largest U.S. manufacturing sectors, (2) a historically paradigmatic industry that hires migrants, and (3) a newly emerged industry that also uses migrants for its production sector. Here, I examine this issue using the state as a unit of analysis. Table 5.4 shows the results.

Table 5.4: OLS Regression for the Percentage of Migrants in Four Industries

	Animal Slaughtering and Processing		Transportation Equipment Manufacturing		Cut and Sew Apparel Manufacturing		Computer and Peripheral Equipment Manufacturing	
	Coef.	S.E	Coef.	S.E	Coef.	S.E	Coef.	S.E
Intercept	-11.461	71.47	24.593	22.43	13.545	26.09	-79.147	62.18
% of Migrants in 1990	1.635	0.46 **	1.230	0.18 ***	1.648	0.23 ***	3.463	0.39 ***
Unemployment Rate (%)	-3.709	1.74 *	0.749	0.63	0.478	0.65	4.159	2.53
% of Service Industries	0.301	0.78	-0.352	0.30	-0.266	0.35	0.366	0.65
% of Each Industry	7.974	3.54 *	-0.428	0.65	2.264	1.69	-21.509	10.01
Hourly Wage of Production Workers in Each Industry (\$)	1.645	1.21	0.169	0.14	0.300	0.32	3.110	2.43
South (=1)	-0.862	4.39	0.029	1.62	1.494	1.88	3.427	4.15
Value of Shipment per Production Workers' Hour (\$) [Productivity]	0.083	0.04 *	-0.009	0.01	0.005	0.00	0.005	0.04
Adjusted R ²	0.661		0.691		0.943		0.767	
# of Case	35		44		16		42	
States where over 1,000 employees are identified in each industry are included in the analysis								
Notes:								
* p<0.05, ** p<0.01, *** p<0.001 (two-tailed test)								

In line with the previous results, in Table 5.4 as well, the animal slaughtering and processing industry shows a significantly positive effect of productivity on the percentage of migrants. On the other hand, the other three industries fail to show this effect. For these three industries, it is only the % of Migrants in 1990 that has a statistically positive effect. This indicates that migrants only tend to be concentrated in the industries where there are preexisting migrant communities. This result signifies that the high concentration of migrants does not necessarily enhance productivity in the way that produces a statistically significant association between the productivity and the percentage of migrants. This does not mean that the presence of migrants does not contribute to the increase of productivity. However, the result that the animal slaughtering and processing is the only industry that shows a significant association between the productivity and the percentage of migrants lends support to the argument that productivity is not just a consequence but also a cause of the high concentration of migrants. This argument in turn corroborates the importance of the peripheral industrialization of the meatpacking and poultry processing sector in creating the demand for migrants in non-traditional destinations.

Seafood Processing: Periodic Intensification

The existing literature on new destinations also finds that migrants, especially Mexicans, are growing in the seafood processing sector located in non-traditional destinations, especially small coastal towns in the South such as in Maryland, North Carolina, and Virginia (Griffith 2006; Selby, Dixon and Hape 2001). These migrants are brought in to work picking and packing crabmeat, shucking oysters, or deheading

and deveining shrimps. To be sure, the absolute size of migrant incorporation in this industry is smaller compared to that of meatpacking and poultry processing, primarily because the overall size of seafood processing is by far smaller than that of meatpacking and poultry processing. For instance, while in 2010, the animal slaughtering and processing sector had about 489,000 employees, the seafood processing solely recorded roughly 38,000 in the United States (U.S. Bureau of Labor Statistics 2010). Still, the relative impact of migration is significant. One study reports that, in the crab processing industry in North Carolina, Mexican migrants constituted 75 percent of the entire work force (Selby, Dixon and Hape 2001).

The U.S. seafood processing industry in the South is very different from the meatpacking and poultry processing sectors in terms of industrial characteristics. The former is smaller than the latter in terms of the average business size. It has also gone through a significant decline under the intensifying international competition. Moreover, production activity is seasonal, and local women, who are also often of a racial minority, have historically made up the main production labor force.

The demand for migrants in seafood processing can be coined by the term “periodic intensification.” The operation is seasonally intensified during the harvest season. In order to meet this periodically recurrent labor demand, seafood processing in the South has used migrant workers in the last two decades. Yet it does so in a way that is different from the meatpacking and poultry processing sectors. That is, the seafood processing industry now brings migrants in through the use of the H-2B visa program: a guestworker program for temporary, non-agricultural, and low-skilled work in the United States. Below, I focus on the case of the crab processing industry in the

mid-Atlantic coastal areas (Griffith 1995b; Griffith 2012; Griffith 2006; Selby, Dixon and Hape 2001).

Industrial Characteristics

The seafood processing sector in the South differs from meatpacking and poultry processing in some industrial characteristics. First, seafood processing operations typically remain smaller in size. Unlike the large meatpacking and poultry processing plants, seafood processing is a “homegrown” enterprise that usually has between 15 and 100 employees (Griffith 1995b). This reflects the fact that the seafood processing industry is more diverse in the type and nature of products, enabling smaller companies to take advantage of market niches and remain in business (Griffith 1995b). Reflecting this industrial character, moreover, the labor process is less capital-intensive. Thus, at the worksite: “There are large vats for cooking the seafood in one part of the plant. In another part are long tables of various heights for sitting and standing where the cooked meat is removed from the main part of the shell by pickers using slightly curved, two-inch bladed knives, and from the claw with a heavier blade knife” (Selby, Dixon and Hape 2001: 237).

Second, the industry has been in decline due to the competitive forces of economic globalization. For instance, while North Carolina and Maryland had 79 and 43 seafood processing plants in 1994, the number has declined to 28 and 20 in 2010, a drop of roughly 65 and 53 percent, respectively.⁸² In the case of the crab processing

⁸² Data from the 1995 and 2011 Fisheries of the United States (National Marine Fisheries Service 1995, 2011) The declining trend also corresponds to the national

industry, the biggest challenge comes from the importation of crabs from Southeast Asia, especially areas such as Thailand (Epstein and Desmon 2006). In the mid-1990s, the crabmeat industry made up 76 percent of the blue crab supply in the United States. By 2004, U.S. processors were only 30 percent of the market (Epstein and Desmon 2006).

Third, the production activity remains a seasonal endeavor, which is influenced by the harvest season of local crabs. The picking season starts in March or April, and usually lasts through November (Griffith 1995b). In this seasonal work, wages are not based on an hourly calculation but are paid as a piece rate for each pound of meat produced. Under this arrangement, pay is low in the industry. Although the data is a little outdated, a 1993 study of crab pickers in three states (North Carolina, Virginia, and Maryland) found average weekly earnings to be around \$213 (Griffith 1995b).

Fourth, the production labor force has historically been gendered, and local women have represented the main production labor force (Griffith 1995b; Selby, Dixon and Hape 2001). The labor force is also racialized, with employers having historically drawn upon local black women (Griffith 1995b). Due to the seasonal work of the local seafood processing sector, local black women have typically combined other seasonal or temporary work in the formal and informal sectors for their survival. While playing the role of a contingent seasonal labor force, however, these women also “exercised a great deal of flexibility over their work schedules, coming to work

tendency. According to the same data source, during the same period, the number of seafood processing plants in the country recorded about a 44 percent drop, from 1,504 to 844.

when it was convenient for them and when working didn't conflict with social obligations, home production schedules, or other demands on their time" (Griffith 1995b: 165-166). Thus, as Selby and her colleagues (2001) tell, "Rather than raise wages, the crab house owners have traditionally offered flexibility of work schedule as the primary incentive for local people to engage in crab picking (237)."

Labor Migration through the H-2B Visa Program

Unlike the U.S. meatpacking and poultry processing industry, accordingly, U.S. crab processing in the South is smaller, and is currently declining under the intensifying competition with imported seafood. In addition, the production is seasonal and has traditionally utilized local female labor force. In this context, this industry has started to use Latino migrants, especially Mexican female workers. This industry employs these migrants by a different means than those used in the meatpacking and poultry processing sector, principally drawing on a temporary worker program to procure migrant labor.

Though not widely known, the United States currently has a temporary migrant worker program that aims to fill labor shortage for temporary, non-agricultural, and low-skilled work: the H-2B visa program. This program was created in 1986 as part of the Immigration Reform and Control Act (IRCA).⁸³ Because it is a *de jure* temporary worker program, companies filling H-2B petitions are required to certify

⁸³ More specifically, IRCA divided the then-H-2 program, which was created in 1943 when the Florida sugar cane industry obtained permission to hire Caribbean workers on temporary visas, into two separate programs: the H-2A agricultural program and the H-2B non-agricultural program.

with the Department of Labor that they cannot secure sufficient numbers of native-born workers as well as pay the prevailing wage, though the effectiveness of these requirements has now been put in question.⁸⁴ While this program may give relief to migrants, in that they can legally work in the United States (Griffith 2006), both their geographic and occupational mobility are significantly restricted since they are tied to their employers. In this program, employers must obtain the visas for the workers during their stay and time spent working in the country. The vast majority of H-2B workers come from Mexico (Seminara 2010). The program has an annual cap of a total of 66,000 migrants.

The popularity of the program soared from only 11,843 visas issued in 1990 to an all-time high of 129,647 visa issued, including returning H-2B workers,⁸⁵ in 2007. The termination of SOSSBA (see footnote 85), probably coupled with the ensuing economic recession, has contributed to the decline in the level of visa issuance in the years after 2007. In 2012, thus, 50,009 H-2B visas were issued (see Figure 5.3). Whereas this figure certainly represents a tiny portion of migrants in the United States, where there are currently roughly 40 million migrants residing (Grieco et al. 2012), a variety of U.S employers now rely on H-2B workers, including in such industries as

⁸⁴ For instance, while would-be H-2B employers need to demonstrate that they have tried to fill the jobs locally by placing help wanted ads in local newspapers, according to Seminara (2010), the ads very often run at the “wrong” time of the year: as early as four months before the temporary work would actually start. Also, many of these ads that appear in newspapers tend to “look like legal notice, in that there is no boldface text, no italics, no thick borders around the ads to make them stand out ...” (Seminara 2010: 12). Other studies also found that the wages set for H-2B workers are often lower than the average wage (Costa 2011; Velez 2008).

⁸⁵ The Save Our Small and Seasonal Businesses Act (SOSSBA) of 2005, which was terminated (or failed to be renewed in Congress) in 2007, exempted H-2B workers who were returning to work in the same business from counting against the annual cap.

landscaping, forestry, hotels and tourism, restaurants, amusement parks, construction, and seafood processing (Seminara 2010). In the case of the crab processing sector specifically, in 2010, 23 firms in four states (Louisiana, Maryland, North Carolina, and Virginia) petitioned for a total of 1,215 visas for crab processing jobs, of which 1,163 were certified (Office of Foreign Labor Certification 2010).

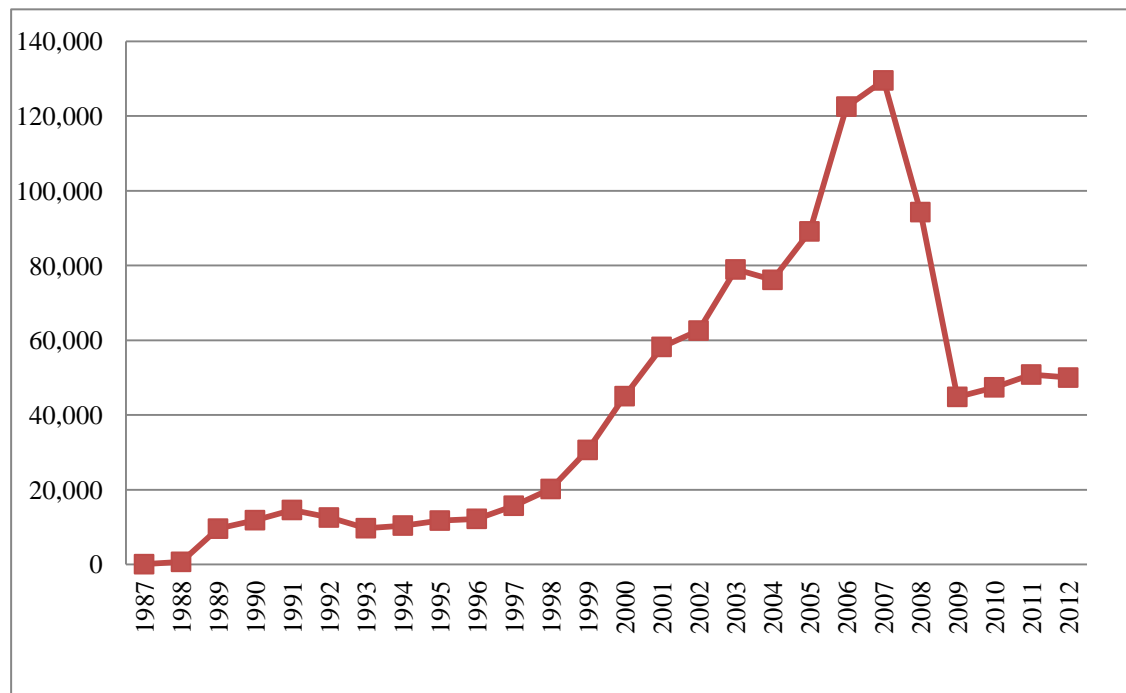


Figure 5.3: Number of H-2B Visas Issued (Including Returning H-2B Visas, 2005-2007), 1987-2012. Source: Created by the author from data from the U.S. Bureau of Consular Affairs (1987-2012)

The crab processing industry is one of the earliest beneficiaries of the H-2B program. In the mid-Atlantic states, a few pioneer crab processors started to bring in H-2B workers, specifically Mexican women, in the late 1980s, with each being

notified of the availability of this program by a few different ways: a local employment office, a crab processor in Mexico, or a contractor of H-2 workers in Mexico (Griffith 2006). These employers attributed the declining work ethics and reliability of local workers – which, in their view, is caused by welfare provisions – to local labor shortages (Griffith 2006). Other processors soon followed suit, and, by the mid-1990s, Mexicans dominated in the crab processing labor force. Because of the reduction of their workload, this resulted in the displacement of the remaining local African American workers (Griffith 2006). It also promoted young black women to either pursue further education in local community colleges, or to find jobs in growing service industries such as tourist-related jobs, nursing and health care, and restaurants (Griffith 2006).

In the case of the U.S. crab processing industry, as well as in other seafood processing sectors that also use H-2B workers (Preston 2011), the periodic intensification of production explains the demand for migrants. Unlike the meatpacking and the poultry processing industries, which have established large scale industrialization that offers year-round work for a relatively better wage (compared with other low-skilled employments), the seafood processing in the South still provides seasonal work, and the pay is lower. Against this backdrop, Mexican women are brought in to small coastal towns to work during the harvest season of local crabs, from March or April through November or December, returning home during the winter (Griffith 2012).

Offering low-wage seasonal work and unstable employment in small, competitive companies, the work in the crab processing industry in the South may be a

typical example of the secondary labor market. In this sense, therefore, it is of little wonder that this industry is now dependent upon migrant workers. On the other hand, however, with little local concentration of migrants, local seafood processing companies use the type of migrants that are not typical for the majority of business owners in the country: H-2B migrant temporary workers. Here, labor migration occurs, since the *de jure* temporary migrant program enables the use of migrants for periodically intensified, seasonal work.

Conclusion

Focusing on the new dynamics of labor migration in the United States, in which Mexican migrants have increasingly relocated away from their traditional destinations, this chapter analyzed how the U.S. food processing industries have contributed to this phenomenon. Examining how these food processing industries in the United States have generated a demand for migrants, the chapter sought to understand whether or not the way labor migration occurs in the Japanese seafood processing is distinctive in light of the new labor migration experiences in the United States.

In spite of an apparent similarity of the demand for migrant labor within the food processing sector that has in turn produces labor migration outside large metropolitan cities, the analysis found that the ways that these labor migration flows occur is indeed different. In the Japanese opportunity structure of labor migration, in which the FTTIP provides one major means for businesses to obtain migrant labor, it is petite industrialization that explains the demand for migrants. On the other hand, in the

U.S. meatpacking and poultry processing sector, peripheral industrialization explains the demand for migrant labor. Conducted by nationally or globally large companies, the industrialization of these industries is more extensive in scale and more intensive in their technological development than the petite industrialization of the small and medium Japanese seafood processing companies. The U.S. companies advance this industrializing strategy in the peripheral areas of the country, often receiving financial assistance by local governments. In the context of an ample supply of migrant labor in the country, they make migrants meet their labor demands by offering them jobs that are year-round and pays relatively well compared with other low-skilled work, and by providing them with chances for (limited) upward mobility.

On the other hand, at the first glance, the U.S. seafood processing sector has some things in common with its Japanese counterpart. They both are small or medium in size, and are currently in decline. In addition, wages are low, and female workers constitute a main production labor force. Moreover, they also utilize a similar temporary migrant worker program, one that is *de facto* or *de jure*, as a means for securing migrant workers.⁸⁶ However, a major difference exists in the cause of the demand for migrant labor. In the case of the U.S. seafood processing industry, periodic intensification explains this demand. The seafood processing sector in the U.S. South

⁸⁶ The FTTIP and H-2B visa programs are further similar in that, under these programs, migrants are tied to the same employer during their stay and work. This similarity produces a similar issue regarding the human rights of migrants. For instance, a migrant advocacy group in Japan denounces the FTTIP since it imposes “Slave Labor” (*Dorei Rōdō*) on migrants (“Gaikokujin Rodosha Mondai to Korekara no Nihon” Henshu Iinkai 2009). On the other hand, its American counterpart also criticizes the H-2B program by calling it “Close to Slavery” (Bauer 2013). This concern also resonates with those reported in non-democratic settings such as in Bahrain (Gardner 2010).

still remains less industrialized, and the production activity is seasonal. The labor demand for this periodically recurrent work is now met by migrants through the H-2B visa program, a *de jure* temporary worker program aimed at providing migrant labor for seasonal work.

Chapter 6. Conclusion

Against the backdrop of the growing momentum of international migration in the world, this dissertation has addressed the issue of how labor migration occurs in Japan. The case of Japan is important for its dual character of labor migration. On one hand, as well as other similarly economically developed countries, since the early 1990s Japan has begun to receive low-skilled labor migrants, resulting in the increase of the migrant population in the country. On the other hand, however, Japan is still a distinctive case in the way in which it receives labor migrants. Due to a concern with the negative social and economic consequences that may accrue from the settlement of migrants, Japan has no official immigration policy regarding permanent residency. Nor does it even have an “official” labor migration policy. Rather, Japan has been consistent in its principle that it receives no low-skilled migrant workers. Under these restrictive immigration policies, the Foreign Trainee/Technical Intern Program (FTTIP) plays the role of providing domestic businesses with migrant labor, functioning as a *de facto* temporary migrant worker program.

Keeping in mind this distinctive character of labor migration in Japan, this dissertation explored specifically how labor migration occurs under the FTTIP. For this purpose, it looked at the case of the seafood processing industry, which is one of the most migrant-dependent industries in Japan. While this industry is among the most migrant-dependent in comparison with other industries, however, the demand for migrants still appears to be small within this industry, with only a small portion of seafood processing companies actually introducing migrants through the FTTIP. In

addition, this small demand is also unevenly dispersed across seafood processing sites in Japan, with some seafood processing sites evidencing a higher dependence on migrants than others. If these outcomes characterize labor migration in the Japanese seafood processing industry, why is it the case? This dissertation specifically tackled with this issue.

This dissertation made two arguments. First, it argued that the demand for migrants is more often generated in the seafood processing sites that have experienced petite industrialization. In general, the Japanese seafood processing industry embodies the character of the secondary sector of the economy, in which small- and medium-sized companies, with labor-intensive production processes and poor labor compensations, are concentrated. These companies take advantage of the FTTIP so as to employ migrants in the industry. Nevertheless, seafood processing sites that more often bring in and use migrants are not those that are less developed, or more “backward.” Rather, they have opposite characteristics, having more industrialized production systems than others, at least within this industry. Migrants are more likely to be incorporated into such seafood processing sites.

This means that, while the dominant labor migration literature often associates the demand for migrants with a less developed portion of the economy, this dissertation found an opposite outcome. To be sure, the literature is not entirely wrong, it explains why the seafood processing sector more often uses migrants than other industries. While the literature provides useful guidance for an inter-industrial comparison at the national or intra-local level, however, it is not necessarily the case if one takes a comparative perspective set at an intra-industrial, inter-local level.

Certainly, perhaps the latter perspective is not so useful in the Western context, where various industries employ migrants in certain localities. But it is useful in the Japanese context, because, under the FTTIP, certain industries are employing migrants in various parts of the country. Taking the intra-industrial, inter-local perspective, the dissertation found that more advanced seafood processing sites are more likely to employ migrants, at least in the context of Japan. The fact that the petite-industrialized seafood processing sites more actively introduce migrants explains why the demand for migrants is small overall and tends to be geographically concentrated.

In order to understand why petite industrialization matters, I also argued that the state immigration/labor migration policy – as an opportunity structure – shapes the business incorporation of migrant labor. The employment of migrants is not organized in an economic vacuum. Nor is the business demand for migrants necessarily automatically translated into an expansive policy of immigration or labor migration. Rather, the employment of migrants is organized according to the way businesses adapt to the immigration/labor migration policy as an opportunity structure of labor migration – in which they are embedded. In the case of the Japanese seafood processing industry, business adaptation can first be observed in the fact that the incorporation of migrants is enabled through the FTTIP in the overall restrictive regime of immigration that allows for a small number of settled migrants. While this is well known, it is not the whole story. There is another important adaptation outcome that is responsible for the relative concentration of migrant workers in the petite-industrialized seafood processing sites.

I argued that this concentration occurs because of the fit between the type of

labor needed by the petite industrialized seafood processing industry, on one hand, and the labor force that is enabled and provided by the FTTIP, on the other hand. That the production process is petite-industrialized means that year-round mass production is a primary strategy of production. Due to the characteristics of the secondary labor market, the seafood processing industry in general faces a chronic problem of finding and securing native-born workers. Yet this problem becomes even more serious for the petite-industrialized seafood processing sector. This is because, in order to make mass production strategies work, the seafood processing industry needs to be able to secure stable and reliable workers. Here the demand for trainee and technical intern migrants arises. On this point, it is certainly true that trainees and technical interns play a similar role to that of temporary migrant workers in the way that they provide a transient or flexible labor force (for the period of three years). From another point of view, however, this means that it is very likely that these migrants will show up to work and will work reliably for employers during their contracted period of work in Japan. The character of these migrants guarantees a stable and predictable labor force for employers, which, in turn, makes these migrants a suitable labor force for seafood processing companies using the petite-industrialized production process. In other words, petite-industrialized seafood processing sites create a large demand for migrants under the FTTIP, not despite but precisely because of their advanced production structure within the industry. This, I argued, represents the outcome of the way in which the Japanese seafood processing sector has adapted to the Japanese opportunity structure of labor migration.

In order to substantiate these arguments, this dissertation organized its

chapters in the following ways. Chapter 2 used statistical regression analysis to look at local economic, demographic, and industrial factors that influenced the demand for migrants in the local seafood processing industry. More specifically, using the productivity of the local seafood processing sites as a proxy for the degree of industrialization, the analysis showed the significant positive association of this variable with the percentage of migrants in the local seafood processing industry. By so doing, it provided initial credit to the argument that migrants are more likely to be incorporated into petite industrialized seafood processing sites.

Chapter 3 delved into this statistical relationship, looking mainly at the case of Yamada City, which has a large number of migrants working in the local seafood processing sector in both relative and absolute terms. This chapter first argued that high productivity is not entirely a consequence of a large proportion of migrants, showing that the local seafood processing had already transitioned to a highly productive production structure prior to the incorporation of migrants. It also showed how the pressure for production efficiency under the petite industrialized production system necessitated a stable and reliable labor force, leading to the incorporation of trainee and technical intern migrants.

Chapter 4 addressed the “negative case” of Kawai Town, in which the local seafood processing industry constitutes one major local industry, but in which the percentage of migrants is relatively low. Specifically, this chapter investigated why local seafood processors use natives rather than migrants and, as an equally important question, why they can do so. It pointed out the importance of the convenience of native-born workers for local seafood processors. It also suggested the existence of the

subtle balance between employers, who use native-born part-time female workers for their own convenience, and employees who also act on their own interest, as a factor that enables employers to secure native-born workers.

Chapter 5 introduced an international comparison with the United States, asking whether or not petite industrialization also accounts for a new pattern of labor migration that has played out in the United States since the 1990s. Looking at the case of the U.S. meatpacking, poultry processing and seafood processing industries, this chapter argued that petite industrialization is still distinctive as the factor that generates the demand for migrants in Japan.

Implications of the Dissertation

Having summarized the main arguments of the dissertation, here I provide a brief discussion concerning implications of this dissertation for two relevant issues. It concerns how it relates to the incorporation of *Nikkeijin*, and the relation with other industries that also use trainees and technical interns.

The first is how the main findings of this dissertation relate to the incorporation of *Nikkeijin*, or Japanese-origin, workers into the Japanese labor market. Along with trainees and technical interns, *Nikkeijin* – mostly from Latin America – constitute another large group of migrant workers in Japan. To date, however, our understanding of differential labor market experiences between these two groups appears to be limited.

Labor market experiences are certainly different between these two groups. First of all, endowed with a “long-term resident” visa, which imposes no legal

constraints on their economic activity in Japan, at least legally, *Nikkeijin* are better positioned for pursuing upward mobility than trainees and technical interns, for whom geographic as well as occupational mobility is prohibited. Second, because of this, previous research revealed that *Nikkeijin* workers are more likely to be concentrated in industries that offer relatively higher wages such as the automobile industry, which also causes a geographic concentration of these migrants in certain company cities/towns, with Toyota City being one of the most notable examples (Kajita, Tanno, and Higuchi 2005; Tanno 2007). Third, previous research also found that, working for subcontracting companies for large companies, these *Nikkeijin* play the role of a flexible labor force in higher-paying industries (Kajita, Tanno, and Higuchi 2005; Tanno 2007), in which the decline in product demand goes directly to the layoff of these migrants under the Just-In-Time production system. Overall, the experiences of the *Nikkeijin* are certainly different from those of trainees and technical interns, who continuously work for three years in lower-paying industries such as seafood processing.

This dissertation found that the dissimilarity between these two groups is more nuanced. That is, the contrasting experiences between these two groups do not only lie in the fact that the *Nikkeijin* take the role of the flexible labor in advanced manufacturing industries, on one hand, and trainees and technical interns offer “fixed” labor in less advanced industries, on the other hand. Considering the finding that trainees and technical interns are more likely to be incorporated into more industrialized parts of the seafood processing industry, the above contrast can be reformulated in the following way. That is, if the role of the *Nikkeijin* is to provide

flexible labor to a less developed portion (subcontractors) of advanced industries, that of trainees and technical interns is to provide fixed labor to a more advanced portion of less advanced industries.

The second issue relevant to this dissertation concerns a possible theoretical implication for other industries that also make use of the FTTIP. This dissertation focused on the seafood processing industry, because it is among the principal users of this program, employing a large number of migrant workers in both relative and absolute terms. Another reason for this involves the fact that, reflecting the nature of job that is low-paid and low-skilled, the food processing industry is one of the most typical migrant-hiring industries in the world, past and present. Given these characteristics, seafood processing provided a good case in which to analyze the way labor migration occurs in Japan in the era of global labor migration. Through the analysis of this industry, I argued that petite industrialization is a key to understanding the demand for migrants in the Japanese opportunity structure of labor migration.

But what about the generalizability of this finding? If the theoretical insight gained from this dissertation were to be applicable to the cases of other industries, especially those that use fewer migrants on average, then it would follow that the demand for migrants in those industries is smaller because they are less industrialized overall. But is this true? Perhaps it is not. In this regard, it is necessary to be reminded that the seafood processing industry is generally less productive and less industrialized in comparison with other industries, including those that also use the FTTIP, such as the fabrication of metal products. It does not pose a big surprise that less productive industries such as seafood processing plants employ a larger number of migrants. In

the case of more industrialized or advanced industries, issues such as the local availability of high school graduates or the need for skill-training for native-born employees may also be an important concern in making the decision of whether or not to receive migrants (Shiho 2007). This in turn suggests that the decision to employ migrants (trainees and technical interns) may differ depending on the specific character of industries. While this dissertation is unable to deal with this issue, it at least suggests that, only by accumulating case studies by industry, does it become possible to understand the entire contour of how labor migration plays out under the FTTIP in Japan. This dissertation provides an important step for such an endeavor, analyzing how labor migration occurs in one of the most migrant-dependent industries in Japan and beyond.

Migration and Japan's Future

Will Japan maintain the FTTIP as a major means to introduce and utilize migrant labor in the future as well? There may be no drastic change in policy for at least the time being. As mentioned in Chapter 1, for instance, the government has dealt with the expected labor shortages in the construction industry, caused by the reconstruction of areas affected by the Great East Japan Earthquake and the construction boom due to the Tokyo Olympics, by increasing the number of technical interns.

On the other hand, it is also true that the government may intend to modify its highly restrictive immigration policy in the future. There have been sporadic discussions within the government concerning this issue since the late 1990s. While

the debate in the late 1980s principally focused on whether and how to accept migrant workers in the midst of labor shortages, in this newer phase, the tone of the debate has been changed. It has now shifted to whether and how to accept “immigrants” in the context of low national fertility and the aging and decline of the population.

Will Japan really change its immigration policies to accept “immigrants”? If so, when will Japan do so, how many immigrants will it accept, and how will it select candidates? There is no definite answer so far. Occasional discussions in the government have thus far not been materialized into any concrete plan. But if Japan finally made a decision to change itself into a country of “immigration,” rather than one of “labor migration,” then the issue of “integration” or “assimilation” of immigrants and their descendants would gain much greater importance than ever.

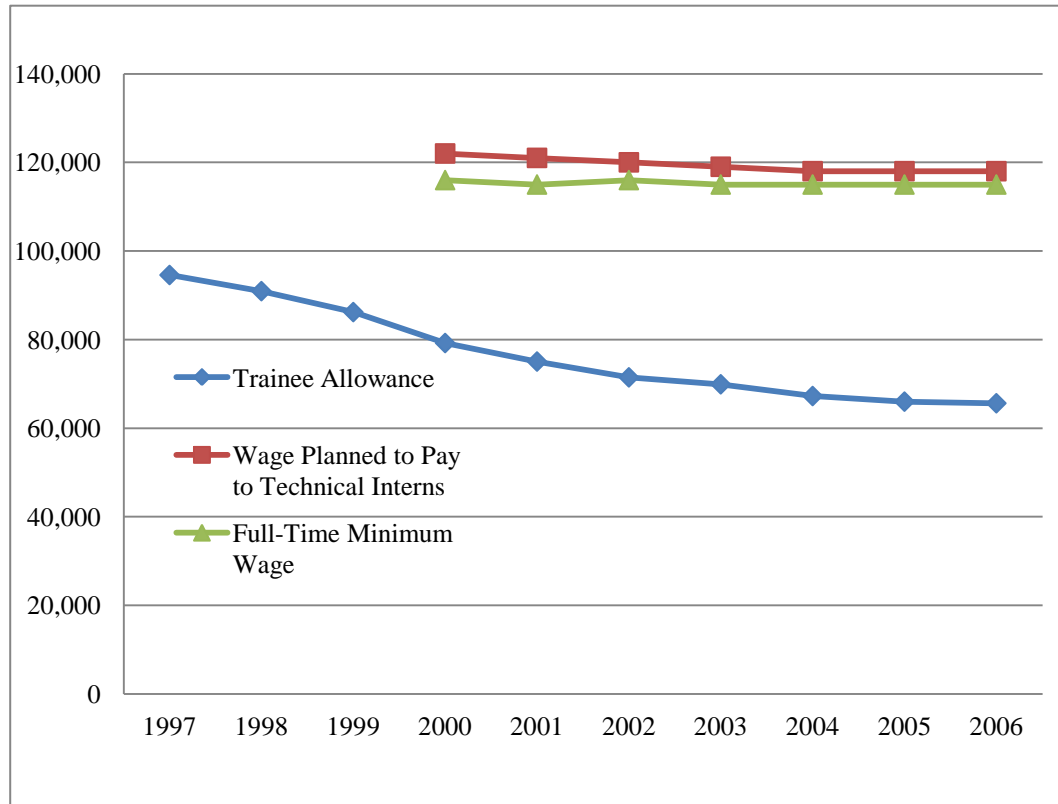
Research by Alba (2005) on the assimilation and exclusion of second generations in the United States, France, and Germany found that race is a primary marker of social boundaries in the United States, while religious distinctions are salient in Western Europe. How about in Japan? In the case of Japan, national/ethnic differences might serve a similar role, especially if it received immigrants from its neighboring countries. As compared with migrant-receiving North American or Western Europe, Japan has a very specific state of being. That is characterized by a lingering diplomatic conflict with its neighboring countries, which is rooted in the legacy of colonialism. As long as this tension continues with no clear signs of abating, public discourse and media sensationalization of diplomatic conflicts or “threats” would be continuously replenished within the country. This could serve to strengthen the way in which national and ethnic differences serve as a primary source of social

distinction, which may in turn influence the way Japan “integrates” immigrants and their descendants, as well as how the latter “assimilate” in the Japanese context.

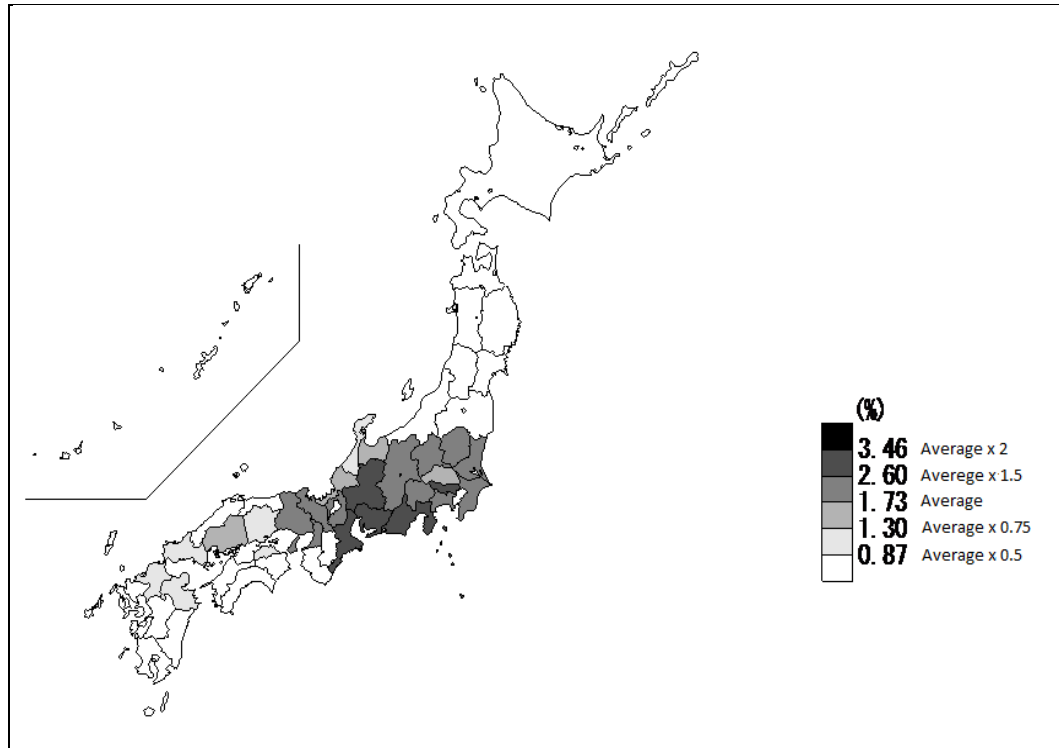
However, it still remains to be seen whether and, if so, when and how Japan will open the door to large scale “immigration.” Until the day in which the door opens, the FTTIP will continue to provide one major opportunity for domestic businesses and industries to procure low-skilled migrant labor. And the way labor migration plays out in Japan will be shaped, to an important extent, by how domestic businesses generate the demand for migrants in this opportunity structure of labor migration – in which they are embedded.

APPENDICES

Appendix A: Average Monthly Trainee Allowance, 1997-2006, and Average Monthly Wage Planned to Pay to Technical Interns, 2000-2006. Source: Created by the author from Shugiin Chosakyoku Homu Chosashitsu (2008: 52, 62)



Appendix B: Percentage of Foreigners by Prefecture, 2008. Source: Created by the author from data from the Japanese Ministry of Justice (2008) and the Japanese Statistics Bureau (2008)



Appendix C: OLS Regression for the Percentage of Migrants in the Local Seafood Processing Industry

	Coef.	S.E	
Intercept	1.314	2.62	
% of Migrants in 2000	1.410	0.34	***
Unemployment Rate (%)	-0.334	0.12	**
% of Service Industries	-0.009	0.03	
% of Seafood Processing	0.361	0.08	***
Average Establishment Size	0.033	0.01	**
Relative Wage Level of Seafood Processing (%)	-0.010	0.04	
Production Volume per Employee (ton) [Productivity]	0.183	0.03	***
Adjusted R ²	0.182		
# of Case	564		
Notes:			
* p<0.05, ** p<0.01, *** p<0.001 (two-tailed test)			

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