

Workforce Development with Japanese Technical Intern Training Program in Asia: An Overview of Performance*

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I . Introduction

The Japanese Technical Intern Training Program (TITP)—widely recognized as a revised international technical cooperation policy of Japan—was introduced in 1993 to assist the development of human resources in developing countries while helping Japan solve its own labor shortage problem. The two-pronged approach of this program can be seen as being a direct result of Japan's own development experience combined with traditional views about technical assistance and international cooperation policy to help the development activities of developing countries. The primary aim of traditional technical assistance policy, which commenced in the 1960s, has been for a donor country to train high ranking members of the government and private sector organizations in recipient countries (developing countries). Japan and developing countries have realized that much of such training has been restricted to the trainees' office or laboratory without sufficient contribution to the development process of the recipient country or donor country. In many cases, trainees have received high-level technical knowledge, but have failed to apply this knowledge in industrial

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fields within their recipient countries. This lack of contribution is recognized as resulting from deficiencies in the human resource development process, also known as the ‘workforce development’ process.

It is widely recognized that most developing countries have given priority to enhance subject knowledge at the classroom level in their education system without improving student’s practical knowledge in the field and social values. By contrast, Japan realized the need to teach practical field knowledge and social values after the Meiji Restoration in 1868 and since then has attempted to develop human resources by giving equal importance to subject knowledge, practical knowledge and social values¹ starting at the elementary school level. The reasoning has been that people with such training could work as a team in various industrial sectors to meet people’s needs. This approach to education has helped the Japanese to not only modernize their economy within a short period, but also to overcome a wide range of economic or natural disasters that affected their country in the past one and half centuries. This point can be further understood by the following statement given by Kyoei Yanagisawa, Executive Chairman, International Manpower Development Organization² (hereafter IM Japan) in an interview held at his office in Tokyo on April 14, 2016.

Japan was devastated in World War Two. During the war, we lost

¹ In this study, social values are defined as the improvement of the following aspects of the workforce: discipline, attitude, sense of responsibility, mutual understanding, team work, commitment to work, ability to adapt to changes of the work place, self-confidence, honesty, loyalty to duty, obedience to rules and regulations, etc.

² IM Japan was established to foster human resources in developing countries and support the expansion of Japanese enterprises into developing markets with the aims to promote economic growth and international understanding in developing countries and contribute to the sound advancement of society and industries in Japan (Kyoei Yanagisawa, Executive Chairman, IM Japan, 2014: 2)

Workforce Development with Japanese Technical Intern Training Program in Asia all our industrial bases, infrastructure facilities and international markets. In 1945, we were facing a severe food shortage which continued for several years. However, we recovered our economy within two decades that help us to host Olympic Games in 1964. We also became the world's second largest economy (1968) and one of the largest donors (1989) of the world within a short period. All this success overwhelmingly depends on the specific characteristics of our human resources which we developed in our own way since the Meiji Era. If the country faces any disaster, we tackle them as a team but not creating a civil war or attempting to run away to another country.

The above statement helps us understand further how human resources have contributed to economic development in Japan. There is no doubt that Japan's own experiences have shaped its approach to offering technical assistance to develop human resources in other countries in Asia. Furthermore, Japan has realized that development in a country must be carried out by the people of the recipient country themselves, not by the donor country. The donor country should be a partner, not an owner in the development process. In this respect, a well trained workforce should be the result of a technical training program.

The TITP started accepting young people in Asia who are active in the workforce in their home countries in 1993. Japanese firms employ them as trainees and allow them to work with Japanese people, creating various opportunities to learn not only technologies but also Japanese work ethics and social values. Japan believes these trainees will contribute to socioeconomic development of their home countries while helping Japanese firms to solve their labor scarcity problem.

The main aim of this study is to examine the procedure of selecting and accepting Technical Intern Trainees (TITs)³ in the sending country (mainly from Asia) and the accepting country (Japan). In addition, we will also explore performance of the TITP during its two decade history. The analysis is based on secondary data and interviews conducted in Japan and selected Asian countries including Vietnam, Indonesia, Thailand and Sri Lanka.

II. The Modus Operandi of the TITP: An Overview of the Procedure

In general, the purpose of the TITP is to improve human resources through accepting young people who are working in the private sector in developing countries for a certain period to allow them to acquire knowledge, skills, and technologies developed and fostered in Japan, as a means to develop their home countries (JITCO, 2011: 31). However, as noted by Manjome (2016: 31), this program benefits not only developing countries, but also Japan. For developing countries, TITP contributes to 1) the development of industries and private firms in the home countries of trainees; and 2) improves the management, work practices, cost awareness and renovation of production in trainees' home countries. TITP benefits Japanese firms (the host firms of the trainees) through strengthening their relationship with overseas companies, the internationalization of management, and bringing new ideas about work, production and management to accepting organizations.

Through the surveys we conducted, we learned that TITP is contributing to some extent to the following labor and business areas of Japan: 1) helping to solve the labor scarcity problem faced by small and medium-sized enterprises (SMEs) in Japan; 2) helping firms to be competitive by reducing

³ In this paper the terms Technical Intern Trainee, TIT, and Intern Trainee mean the same and will be used interchangeably.

the labor costs of their products; 3) providing job security to some Japanese employees by helping their SMEs to survive; and 4) helping to establish and maintain stable social and economic relationships between Japan and Asia based on mutual understanding. The interviews conducted in Thailand and Sri Lanka also shed light on the fact that TITP is mainly contributing to workforce development rather than industrial development in the trainees' home country. The areas that were affected most positively by TITP were: 1) the improvement of social values, work ethics and entitlements of trainees; 2) the creation of new business ventures; and 3) the improvement of the living conditions of trainees and their families.

The recruiting pattern of trainees in Asia and the accepting procedure of trainees by host companies in Japan can be framed in two major categories: first, Individual Enterprise Type (IET); and second, Supervising Organization Type (SOT). The acceptance of trainees under the first type is managed by individual enterprises in Japan through their overseas offices, joint venture companies or their business partners. The second type (SOT) accepts intern trainees and arranges training at their member companies (Accepting/Implementing Organizations) in Japan. In this instance, the supervising organizations that are eligible to accept trainees are required to be non-profit organizations⁴ such as chambers of commerce or small business associations (Manjome, 2016: 35). The supervising organizations are formed by the members of the implementing organizations. The other noteworthy factor here is that the residence status of trainees receives in Japan varies according to the type of acceptance. The intern trainees are classified into two categories based on their period of stay in Japan: (i) First year and (ii)

⁴ These organizations generally fall under the following categories: chambers of commerce and industry or societies of commerce and industry and Associations of SMEs of which the organization implementing the technical intern training is a member(JITCO, 2011: 37).

second and third year trainees. The duration of the training program varies from one year to three years depending on the ability of the trainees to pass the qualifying examinations on language and various subjects conducted by the government. For convenience of analysis, the present study refers to all technical intern trainees as one group without considering their specific status of residence⁵. The flow charts of both types of sending and accepting procedures of foreign intern trainees are illustrated in Figures 1 (IET) and 2 (SOT).

The sending and accepting procedures of intern trainees for both IET and SOT are very complicated, with SOT being more complicated than IET. The IET accepts trainees through their overseas offices or joint venture companies or business partners (Figure 1). In general, most of the people selected for TITP under IET are working in Japanese joint ventures in developing countries. Japanese firms often use TITP as an opportunity to train their foreign employees further in their parent companies in Japan. The necessary documents for visa and other requirements are supplied by the overseas partner company or office. In regard to these matters, the Japan International Training Cooperation Organization (JITCO)⁶ mediates in various ways such as providing advice and instructions on legal issues such as immigration and labor as they relate to the process of technical intern trainees entering Japan. In other words, JITCO is actively assisting both sending organizations and supervising organizations, as well as helping

⁵ Status of residence of Individual Enterprise Type and Supervising Organization Type are “Technical Intern Trainees (a)” and “Technical Intern Trainees (b)” respectively. See Manjome (2016: 35) and JITCO White Paper for detail information.

⁶ JITCO was established in 1991 under the joint jurisdiction of the Ministry of Justice, the Ministry of Foreign Affairs, the Ministry of Health, Labour, and Welfare, the Ministry of Economy, Trade and Industry, and the Ministry of Land, Infrastructure and Transportation. It is now the public interest incorporated foundation, authorized by the Japanese Cabinet office (<http://www.jitco.or.jp/english/about/> (Accessed on May 9, 2016).

Figure 1: The Way of Sending and Accepting of Technical Intern Trainees: Individual Enterprise Type (IET)

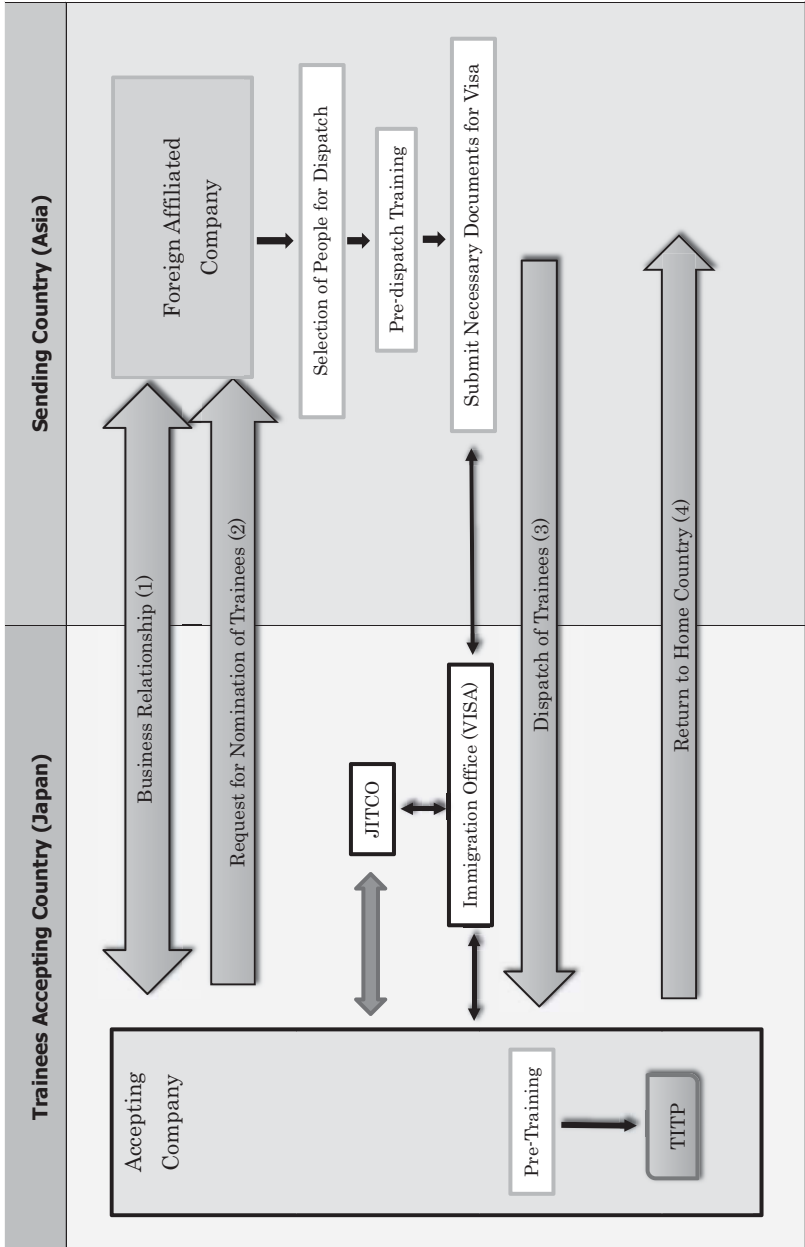
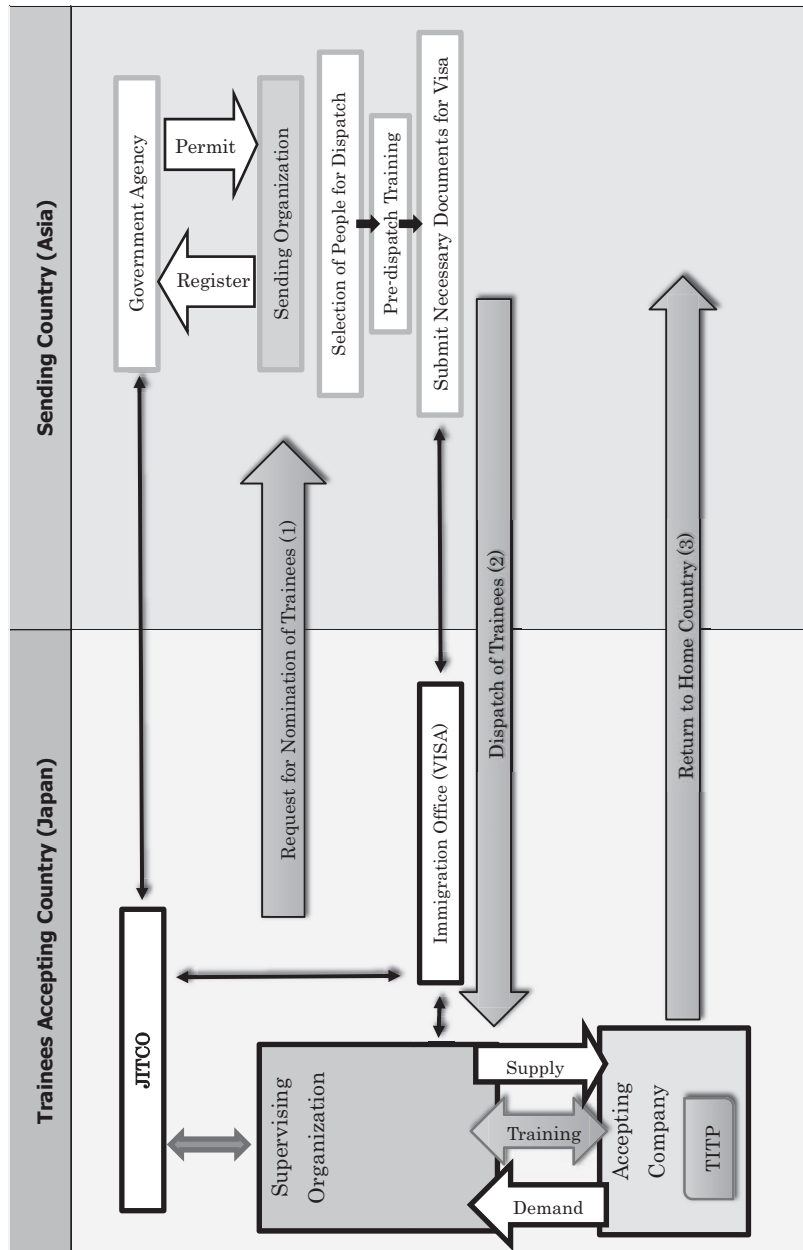


Figure 2: The Way of Sending and Accepting of Technical Intern Trainees: Supervising Organization Type (SOT)



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technical intern trainees, so the program runs smoothly and appropriately⁷.

As shown in Figure 2, SOT supervising organizations accept trainees and arrange training at their member companies. JITCO has established cooperative frameworks with partner government administrative organizations (mostly in the Ministry of Labor or Foreign Affairs) in sending countries in order to ensure that trainees are accepted in a coordinated and appropriate manner (JITCO, 2012: 1). These government organizations act as the monitoring body for the program, and local licensed agencies (sending organizations) are required to provide a short term training on Japanese language and culture for the trainees and sign a bond related to the trainees before dispatching them to Japan. Government organizations work as coordinators as well as mediators to solve problems that arise between sending organizations and trainees. Sending organizations have to deal with a wide range of issues related to the recruitment process: selecting the trainees, providing pre-dispatch training in Japanese language and culture, submitting the necessary documents for visas, arranging air tickets, etc. Accredited sending organizations are privately-owned small companies that act as middlemen in the whole process of sending interns to Japan. The trainees have to pay fees to the sending organizations to help cover the costs of the recruiting and dispatching process. These charges vary according to sending organization and the services they provide. On the Japanese side, the supervising organizations (chambers of commerce and small business associations) handle the whole process, including visa arrangements, pre-training on language and culture before sending them to companies for work training (Implementing Organizations or Accepting Organizations). Thus, the TITP is implemented through direct contracts between Sending

⁷ See <http://www.jitco.or.jp/english/about/> for further information on JITCO's main activities on TITP (accessed on May 17, 2016).

Organizations (Asia) and Supervising Organizations (Japan).

III. Technical Intern Training Program: An Overview of Performance

The TITP of Japan was established and put into service in 1993 to: 1) transfer knowledge, skills, and technologies from Japanese firms to foreign trainees in developing countries; and 2) to help supply labor, particularly for Japanese SMEs in the agricultural and industrial sectors that suffer from labor shortages. Since its inception, the TITP has been altered several times through the amendment of its laws and the expansion of the time of training and skill categories. In 1997, it extended the period of training from a maximum of two years to three years and the approved occupations from 17 to 71 in second and third years of the program. The latest changes were in 2009, when the Immigration Control and Refugees Recognition Act was revised, and on July 1st, 2010, when a new status of residence for intern trainees was created — the Technical Intern Trainee (TIT) — to ensure proper implementation of the TITP. A technical intern trainee (TIT) is considered an employee under the revised Immigration Control Act where labor standards and minimum wage laws apply⁸. With these amendments, ‘trainees’ and ‘technical intern trainees’ became two distinct categories, with the residence status of ‘trainees’ limiting them to off-the-job training in official government-sponsored training programs. For them on-the-job training is not permitted.

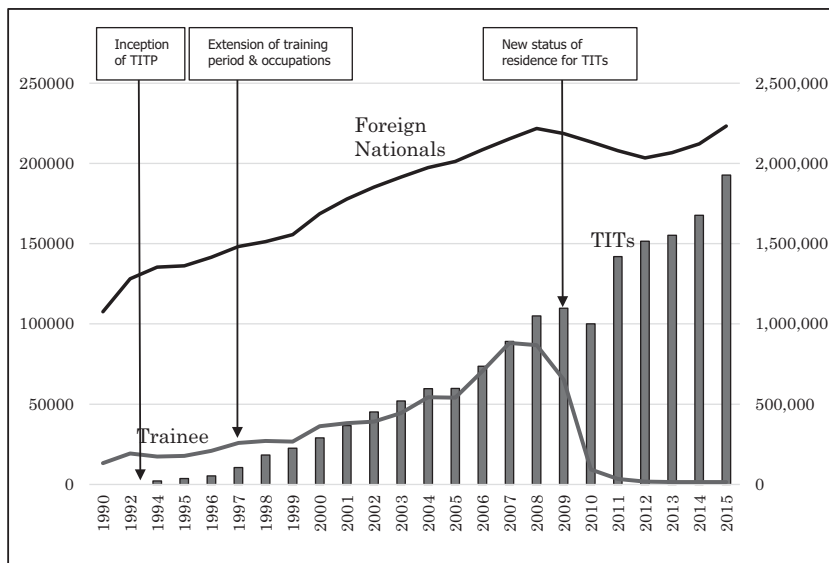
① Overall Trend of accepting Technical Intern Trainees

Figure 3 and Table 1 show the changing pattern of the acceptance of technical intern trainees (TITs, or intern trainees) from developing countries, mainly from Asia during the period 1994-2015. As shown in Table 1,

⁸ <http://www.jitco.or.jp/english/overview/itp/index.html>

Workforce Development with Japanese Technical Intern Training Program in Asia according to the Ministry of Justice, the total number of intern trainees was 192, 655 in 2015. At that time they made up 8.63 percent of total number of 2,232,189 foreign nationals residing in Japan. The number of intern trainees has increased 46 times between 1994 and 2015. They now form a significant group within the total group of foreign nationals residing in Japan⁹. Except for a small decline of intern trainees in 2010 after the revision of immigration law in 2009, the number of intern trainees accepted into Japan has increased on average at a rate of about 15 percent per year during this period. Major increases occurred in 2005, 2007, 2011 and after 2014, with the increase in the number of trainees ranging from approximately 12,500 to 42,000 a year. After streamlining the TITP in July 2010, 41,986 new intern trainees were accepted in 2011—the highest number for a single year. A small drop off occurred as a

Figure 3: Trend of TITs, Trainees and Foreign Nationals in Japan



Source: Same as Table 1

⁹ However, as shown in the notes of Table 1, it should be noted that data for the period 1994-2004 includes foreigners who were engaged in “Designated Activities” in Japan. However, most of the residents in this group were TITs.

Table 1: The Number of TITs, Trainees and Foreign Nationals in Japan

Year	Foreign Nationals	TITs (A)	Trainees (B)	Total Skill Trainees (A+B)	TITs as % of Foreign Nationals	TITs as % of Total Skill Trainees
1994	1,354,011	2138	17,305	19,443	0.2	11.00
1995	1,362,371	3611	17,713	21,324	0.3	16.90
1996	1,415,136	5339	20,883	26,222	0.4	20.40
1997	1,482,707	10,550	25,806	36,356	0.7	29.02
1998	1,512,116	18,259	27,108	45,367	1.2	40.25
1999	1,556,113	22,615	26,630	49,245	1.5	45.92
2000	1,686,444	29,002	36,199	65,201	1.7	44.48
2001	1,778,462	36,673	38,169	74,842	2.1	49.00
2002	1,851,758	45,184	39,067	84,251	2.4	53.63
2003	1,915,030	51,958	44,464	96,422	2.7	53.89
2004	1,973,747	59,707	54,317	114,024	3.0	52.36
2005	2,011,555	59,755	54,107	113,862	3.0	52.50
2006	2,084,919	73,580	70,519	144,099	3.5	51.10
2007	2,152,973	89,033	88,086	177,119	4.1	50.30
2008	2,217,426	104,990	86,826	191,816	4.7	54.70
2009	2,186,121	109,793	65,209	175,002	5.0	62.70
2010	2,134,151	100,008	9,343	109,351	4.7	91.46
2011	2,078,508	141,994	3,388	145,382	6.8	97.67
2012	2,033,656	151,477	1,804	153,281	7.4	98.82
2013	2,066,445	155,206	1,501	156,707	7.5	99.04
2014	2,121,831	167,626	1,427	169,053	7.9	99.16
2015	2,232,189	192,655	1,521	194,176	8.6	99.22

Notes and Source:

① Data for 1994-1996: The number of applicants of intern trainees through JITCO support. TIT's status of residence is Designated Activities (working-holiday visa holders, paid internships, housework servants for diplomats, etc.), and the duration of stay is limited to maximum 1 year until March 1997.

Source: JITCO White Paper 2000, JITCO

② Data for 1997-2004: TIT was a sub-category of the status of residence "Designated Activities", and the duration of stay is limited to maximum 2 years after April 1997. The Ministry of Justice had not identified the total resident numbers of TITs, especially the data on the 2nd year stayers of intern trainees between 1997 and 2004 were not available. Therefore, intern trainees data for the period 1997-2004 obtained from "Designated Activities" which include the 1st & 2nd year stayers of TITs, as well as others such as other paid-internships, working-holiday visa holders, and housework servants for diplomats etc.

Source: JITCO White Paper, Various Issues, JITCO

③ Data for 2005-2009: the number of all intern trainees (both TIT of 1st year and intern trainees of 2nd year) resided in Japan. TIT's status of residence is Designated Activities, and the duration of stay is 2 years maximum.

Source: 2010 Immigration Control, Immigration Bureau, Ministry of Justice, Japan

④ Data for 2010-2015: the number of TIT (A) & TIT (B). Their Status of Residences are TIT (A) and TIT (B).

Source: The Statistics on Foreign National Residents, Ministry of Justice, various issues.

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result of the Asian Financial Crisis of 1997-98 and a somewhat higher but still relatively small drop off occurred as a result of the Global Financial Crisis of 2007-08.

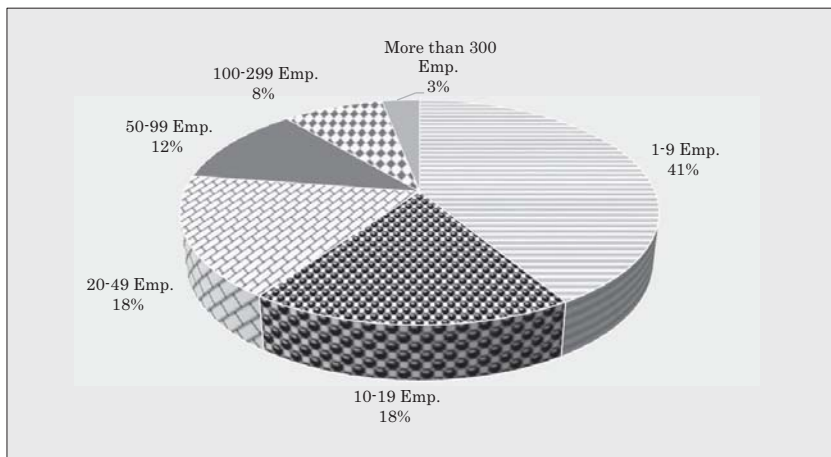
Another major trend that we noticed was the decreasing number of ‘trainees’ who were accepted into Japan as part of Japan’s international cooperation policy towards developing countries. The number of these trainees in Japan increased by five times from 17,305 in 1994 to 88,086 in 2007 and then started to decline to 1,521 in 2015, a dramatic fall off, 58 times lower than the peak. The number of these trainees was eight times higher than the technical intern trainees in 1994, but 127 times lower than the technical intern trainees in 2015. By 2015, the share of trainees was less than one percent (0.79 percent) of the TITs in Japan. After the new amendments were put into place in 2010, the trainees continued to decline, from 9,343 in 2010 to 1,521 in 2015. This is a clear indication that the Japanese government has changed its traditional training system to address the needs of the domestic economy, specifically the labor shortages of SMEs, rather than promote development abroad. It is a well-known but often unstated fact that a main objective of the TITP is to supply young foreign workers to labor-scarce micro, small and medium sector enterprises in Japan, particularly those that need people to do 3K type of work¹⁰. One can no longer call the TITP a genuine training program that transfers knowledge, skills and technologies developing countries. This can be further understood by looking at the size of the accepting firms (Figure 4 and 5).

In Japan, SMEs in manufacturing, construction, transportation, and other industries are defined¹¹ as enterprises having capital up to ¥300 million and/

¹⁰ 3K means, Kitanai (dirty), Kitsui (hard) and Kiken (dangerous).

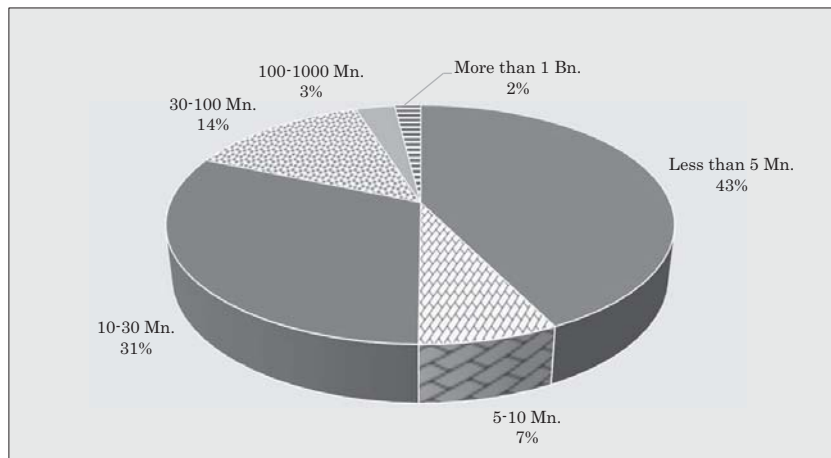
¹¹ See 2014 White Paper on Small and Medium Enterprises in Japan for details.

Figure 4: Accepting Firms by Size of Employees (1994-2014)



Source: JITCO, White Paper, Various Issues

Figure 5: Accepting Firms by Capital Investment (JPY)



Source: JITCO, White Paper, Various Issues

or up to 300 regular employees¹². Micro enterprises are enterprises having up to 20 regular employees. According to these definitions (as shown in Figures

¹² Except rubber product manufacturing industry where they are up to ¥300 million in capital or up to 900 regular employees.

4 and 5), 97 percent of the accepting companies participating in TITP are either SMEs or micro businesses having limited number of employees and capital investment. Of them, more than half (59 percent) are micro businesses. Usually small businesses are family businesses in labor-intensive sectors. There is some evidence that these types of enterprises employ intern trainees, simply to get cheap labor and in some cases, exploit the TITs.

According to the data¹³ presented in Table 2, it is noteworthy that the Individual Enterprise Type (IET) intern trainees make up only a small fraction of the total intern trainees (3.89 percent) while the majority of intern trainees (96.11 percent) were accepted through the supervising organizations (SOT). During the five year period from when the Immigration Control Act was revised and the new TITP was implemented, one can see a tremendous growth in the number of TITs. For instance, the number of intern trainees

Table 2: Technical Intern Trainees According to Type of Accepting Organizations

Description	2010	2011	2012	2013	2014	2015
Total TITs (No)	100, 008	141, 994	151, 477	155, 206	167, 626	192, 655
Accepting Organizations						
① TITs from Individual Enterprises (No)	4, 555	6, 717	6, 990	6, 471	6, 924	7, 499
TITs from Individual Enterprises as % of Total TITs (%)	4. 55	4. 73	4. 61	4. 17	4. 13	3. 89
② TITs from Supervising Organizations (No)	95, 453	135, 277	144, 487	148, 735	160, 702	185, 156
TITs from Supervising Organizations as % of Total TITs (%)	95. 45	95. 27	95. 39	95. 83	95. 87	96. 11

Source: Same as Table 1

¹³ It is important to note that disaggregated data on TIT (based on accepting institution and based on period of stay) was available only from 2010, after the new Immigration Control Act was enforced. Thus detailed analysis could be possible only for the 2010-2015 period.

increased by 92 percent from 100,008 in 2010 to 192,655 in 2015. However, there was no significant difference in the accepting institution type during this period as was the case of 2010, when the majority of the intern trainees (95.45 percent) were accepted through supervising organizations and only a small fraction was accepted through individual enterprises in 2015.

In 2015, there were 91,885 first year TITs while there were 100,770 second and third year TITs from both IET and SOT. Accordingly, TITs accepted within 2015 accounted for about half (47.69%) of the total TITs, while the remaining 52.31% were trainees who were continuing their TITP for the second and third year (disaggregated data for second and third years were not available). This data indicates that only about half the first-year TITs continue while the others drop out. This could be due to several reasons including: 1) the intern trainees' inability to pass the required eligibility skill test (the 'Basic Grade 2' of the National Trade Skills Test) or its equivalent for a first year trainee i.e. 'TIT (i)' to advance to the second stage trainee i.e. 'TIT (ii)'; 2) TITs' unwillingness to continue training in Japan; 3) forced repatriation due to misconduct by the trainee; and 4) absconding from the TITP to work somewhere else within Japan. The unwillingness of the trainees to continue their TITP or absconding from TITP could be due to of the oversight or misconduct of firms involved in the TITP such as has been reported in the media and research literature. These include poor working conditions, underpayment/nonpayment of wages, illegal deductions and fees, illegal/unethical forced repatriation, passport and bankbook confiscation, power and sexual harassment, and exclusion from insurance schemes, exploitation of labor, etc.¹⁴ Some of these issues were rectified with the amendments made

¹⁴ Shortbook: The Industrial Training and Technical Internship Programs: Challenges and Recent Developments (*Ralph Ittonen Hosoki, University of Tokyo, Ph.D candidate, July 20, 2010*); and <http://www.japantimes.co.jp/news/2014/08/13/national/japans-foreign-trainee-program-suffering-shocking-lack-oversight/#.V0vSKpF96Uk>

Workforce Development with Japanese Technical Intern Training Program in Asia in 2010, with the technical intern trainees being recognized as employees. A small increase (2.7 percent) in the number of TITs who extended their TITP status from the first to second and third years — rather than a decline — could also be seen during the five year period after the 2010 amendments. It seems plausible therefore that more and more TITs are becoming interested in staying in Japan to continue their training and work.

② Technical Internet Trainees by Industry

According to literature surveys, TITs are working in more than 72 fields covering almost all fields in the agricultural and manufacturing sectors. This study attempted to examine the industries that employed the most TITs using JITCO's data, but this data only includes the number of applicants that transfer to technical intern training. Data on total annual number of TITs by type of industry for the period of analysis (from 1993 to 2015) was not available. Therefore, it should be noted that the total number of TITs given in Table 1 and Figure 3 are not equal to industry-wise data given in Table 3 and Figure 4. This study attempts to examine only the main industries that employ intern trainees and the share of TITs working in them. It is presumed that number of applicants for transfer are directly proportional to the total number of TITs in each industry.

The data in Table 3 and Figure 4 reveal the changing pattern of accepting of TITs in major industrial sectors which are largely based on labor intensive technologies. This means, companies which require a large proportion of manual laborers working for a low wage to maintain comparative advantage in the international market have a high demand for TITs. As data in Table 3 depicts, the apparel and construction industries utilized the most intern trainees in the 1990s, accounting for more than two-thirds of intern trainees from 1994 to 1999. Although the share of intern trainees in the construction and apparel industries declined from 2000 and 2004 the actual number of

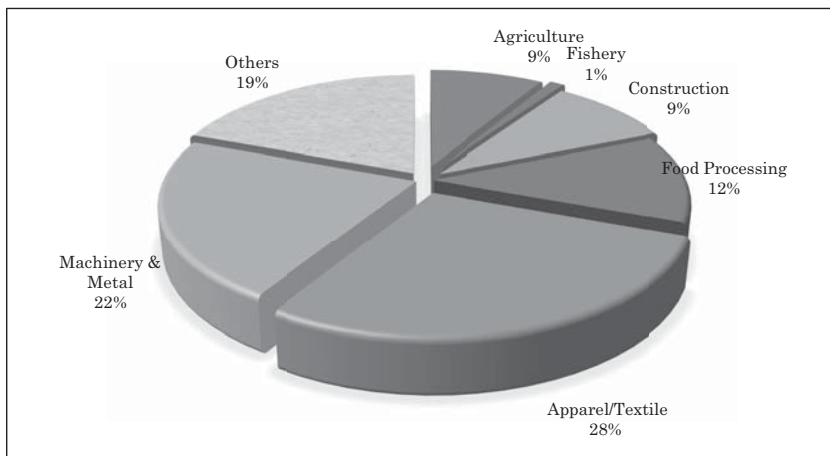
intern trainees increased in these industries during that period, and kept doing so until 2009. A noteworthy trend in the apparel industry has been the decline in the number of TITs since the change of rules and regulations of the TITP in 2010. The main reason for this has been the enactment of strict rules and regulations under the amendment that made it much more difficult to recruit intern trainees for both sending organizations in Asia and accepting organizations in Japan. One of the aims of the 2010 changes was to reduce labor exploitation ascribed to the TITP. Another notable trend has been that although the share of intern trainees in the construction industry has declined since 2001, the accepted numbers have been increasing steadily, especially since 2007. In recent years at least some of this increase can be attributed to increase demand for construction labor since Tokyo was selected in 2013 to host the 2020 summer Olympic Games and rebuilding after the massive earthquake and tsunami in March 2011.

The machinery and metal industry and food processing industries have been the second and third largest TIT-utilizing sectors since the early 2000s. These two sectors have accepted about one-fourth of the total intern trainees since then. The agricultural and fisheries sectors, which have been accused of exploiting TITP labor, have also experienced increases. Between 2000 and 2014, the number of intern trainees accepted into agriculture increased by 32 times and the number doubled in fisheries.

Overall, the apparel industry and machinery & metal industry accounted for about 50 percent of the total intern trainees accepted during the period 1994-2014 (Figure 6). Agriculture, food processing and construction have accepted between nine and twelve percent of intern trainees in that period. In the future, TITP is expected to expand further to meet the labor demand in labor-intensive industries in Japan. According to Japan Times, the Abe administration decided in 2014 to further expand the TITP to address the

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Figure 6: Industry wise Distribution of Technical Intern Trainees: 1994-2014 (%)



Source: Same as Table 3

nation's dwindling labor supply¹⁵. Japan Today reported that the period in which trainees can work under TITP will be extended from three years to five years and some occupations related to nursing and care-giving will be added to the list of occupation categories¹⁶ in the TITP. Considering these trends, the number of TITs accepted into Japan is expected to increase further, but mainly in the labor-intensive industries.

¹⁵ <http://www.japantimes.co.jp/news/2014/08/13>

¹⁶ <http://www.japantoday.com/category/national/view/govt-to-tighten-controls-on-foreign-trainee-program>

Table 3: Industry wise Distribution of Technical Intern Trainees: 1994-2014 (Numbers of Applicants of TIT & TIT 2. %)

Year	Agriculture		Construction		Food Processing		Apparel		Machinery & Metal		Others		Total	
	No	%	No	%	No	%	No	%	No	%	No	%	No	%
1994 - 1996	0	0.0	2670	24.1	249	2.2	4703	42.4	1615	14.6	1851	16.7	11088	
1997	0	0.0	1866	20.0	491	5.3	3733	40.1	1801	19.3	1427	15.3	9318	
1998	0	0.0	1891	15.2	585	4.7	5138	41.3	2914	23.4	1909	15.3	12437	
1999	11	0.1	1576	12.7	497	4.0	6486	52.1	2196	17.6	1676	13.5	12442	
2000	247	1.5	1667	10.3	1315	8.2	7703	47.8	2987	18.5	2188	13.6	16107	
2001	510	2.3	1891	8.5	2202	9.9	9756	43.8	4627	20.8	3282	14.7	22268	
2002	849	3.7	1928	8.4	2596	11.3	10661	46.4	3553	15.4	3410	14.8	22997	
2003	1155	4.2	1748	6.4	3134	11.5	11716	43.0	5064	18.6	4416	16.2	27233	
2004	1837	5.3	2424	7.0	4158	11.9	13162	37.8	7334	21.1	5901	16.9	34816	
2005	2758	6.7	2659	6.5	4844	11.8	14289	34.9	8903	21.7	7540	18.4	40993	
2006	3341	6.5	3930	7.7	6117	12.0	15072	29.5	12557	24.6	9999	19.6	51016	
2007	4045	6.7	5275	8.8	6797	11.3	14871	24.7	15907	26.4	13282	22.1	60177	
2008	4981	7.8	5918	9.3	7278	11.4	14475	22.7	16704	26.2	14391	22.6	63747	
2009	6144	10.6	4859	8.4	7941	13.7	14032	24.2	12356	21.3	12664	21.8	57996	
2010	6092	13.0	3543	7.5	7208	15.3	11181	23.8	8992	19.1	9969	21.2	46985	
2011	6329	12.4	3679	7.2	6401	12.5	10837	21.2	12164	23.8	11699	22.9	51109	
2012	6888	12.8	4595	8.5	7043	13.1	11437	21.3	11775	21.9	12053	22.4	53791	
2013	7252	14.0	5347	10.3	7148	13.8	10385	20.1	10212	19.7	11403	22.0	51747	
2014	7799	13.2	7759	13.1	7494	12.7	9781	16.6	11924	20.2	14270	24.2	59027	

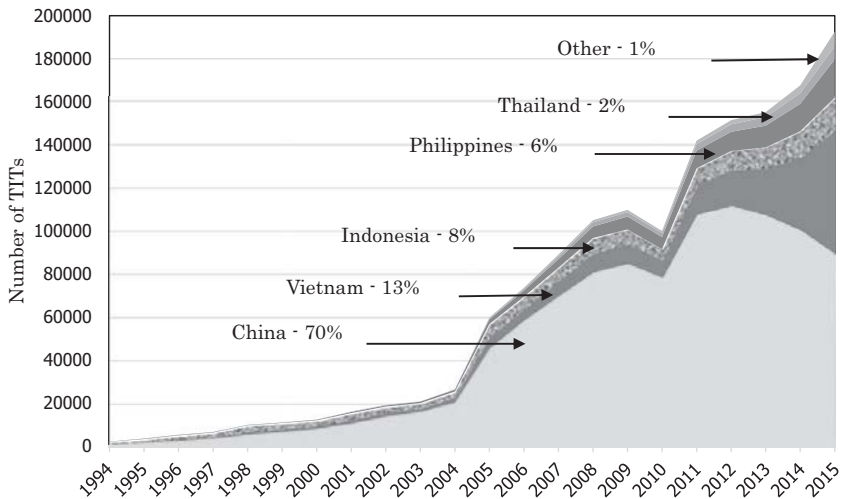
Note:

- ① Data for 1994-1996: Number of applicants for TIT through JITCO support. TIT's status of residence is under Designated Activities, and the duration of stay is maximum 1 year.
 - ② Data for 1997-2009: Number of applicants for TIT through JITCO support. TIT's status of residence is under Designated Activities, and the duration of stay is maximum 2 years from April 1997. Thus, these numbers are only covered the 1 year TITs.
 - ③ Data for 2010-2015: Number of applicants for TIT 2 through JITCO support. TIT 2's status of residence is "Technical Intern Training II", and the duration of stay is maximum 2 years from July 2010. Thus, these numbers are only covered the 1 year TIT 2.
- Source: JITCO White Paper, Various Issues

③ Technical Intern Trainees by Country

During the last two decades, the TITP has accepted approximately 1.5 million (accumulated number) young people as TITs from 35 developing countries, mainly from Southeast Asia. The country-wise comparison of TITs from the time of TITP’s inception is presented in Figure 7 and Table 4. The highest share of TITs has come from Asia. They accounted for 192,565, or 99.95 percent, of the total TITs in 2015. Europe, North America, South America and Oceania collectively represented only a negligible number amounting to only 0.05 percent of the total TITs. There were none from Africa. There has been no significant difference in the proportions from different countries since the new Immigration Control Act was enacted in 2010. That year the share coming from Asia was 99.97%. Since the TITP was introduced the emphasis on Asia has increased. The share of TITP workers from Asia was 92.5 percent in 1994.

Figure 7: Number of Technical Intern Trainees by Nationality



Note: The cumulative number of TITs by nationality between 1994-2015 is given as a percentage

Source: Same as Table 3

In the most recent five-year period, between 2010 and 2015, a majority of the TITs have come from nearby East Asian countries, with the most coming from China, followed by Vietnam, the Philippines, Indonesia, and Thailand. Perhaps, with the exception of Indonesia to some extent, these countries share sociocultural characteristics and morphological features with Japan, making it easier for the TITs and Japanese companies to work with each other. There have been very few TITs coming from other parts of Asia, more specifically from South Asia. South Asia has the largest population of people living in poverty in Asia, and, arguably, it is where the transfer of knowledge, skills and technologies — the original goals of the TITP — are needed most. However, the TITs coming from South Asia represented only 0.3 percent (585 TITs) of the total intern trainees in 2015. This is further proof that TITP is an employment program rather than an intern training and development program.

Chinese have made up the largest share of TITs by a large margin since the inception of the TITP (Figure 7 and Table 4). With the exception of 2010, the share and actual numbers of TITs from China steadily increased until 2012. Although the share and number of TITs originating from China began declining in 2013, China still remains the dominant supplier of TITs. More specifically, the share of Chinese intern trainees has declined from 78 percent in 2010 to 46 percent in 2015. The actual numbers have declined by about 20 percent, from 111,395 in 2012 to 89,086 in 2015. We believe that economic development in China in the recent years, accompanied by more employment opportunities with better work conditions for employees at home, are the main reasons for this decline.

In recent years there has been a remarkable increase in the number and share of TITs from ASEAN countries such as Vietnam, the Philippines, Indonesia, and Thailand. Among these, the highest growth has come from

Table 4: Technical Intern Trainees by Nationality, Numbers and Share (%)

	China		Vietnam		Indonesia		Philippines		Thailand		Others		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1994	1,446	67.6	21	1.0	543	25.4	104	4.9	21	1.0	3	0.1	2,138	
1995	2,194	60.8	209	5.8	919	25.5	214	5.9	34	0.9	41	1.1	3,611	
1996	3,148	59.0	412	7.7	1,489	27.9	245	4.6	30	0.6	15	0.3	5,339	
1997	4,249	63.9	536	8.1	1,593	24.0	195	2.9	38	0.6	34	0.5	6,645	
1998	6,023	60.6	952	9.6	2,744	27.6	179	1.8	25	0.3	20	0.2	9,943	
1999	7,225	65.5	1,074	9.7	2,504	22.7	187	1.7	37	0.3	5	0.0	11,032	
2000	8,633	69.6	1,165	9.4	2,227	18.0	278	2.2	32	0.3	60	0.5	12,395	
2001	11,114	69.0	1,462	9.1	2,854	17.7	470	2.9	112	0.7	101	0.6	16,113	
2002	14,388	74.8	1,694	8.8	2,359	12.3	518	2.7	150	0.8	116	0.6	19,225	
2003	16,620	79.8	1,343	6.4	2,060	9.9	653	3.1	110	0.5	36	0.2	20,822	
2004	20,922	79.0	2,070	7.8	2,474	9.3	819	3.1	112	0.4	91	0.3	26,488	
2005	45,829	76.7	5,018	8.4	5,945	9.9	2,170	3.6	459	0.8	334	0.6	59,755	
2006	58,690	79.8	5,220	7.1	5,537	7.5	2,894	3.9	746	1.0	493	0.7	73,580	
2007	69,894	78.5	6,900	7.7	6,160	6.9	3,956	4.4	1,318	1.5	805	0.9	89,033	
2008	80,838	77.0	8,860	8.4	7,074	6.7	5,297	5.0	1,956	1.9	965	0.9	104,990	
2009	84,813	77.2	9,197	8.4	6,725	6.1	5,964	5.4	2,057	1.9	1,037	0.9	109,793	
2010	78,324	78.3	7,922	7.9	5,343	5.3	5,600	5.6	1,832	1.8	987	1.0	100,008	
2011	107,601	75.8	13,524	9.5	8,016	5.6	8,233	5.8	2,983	2.1	1,637	1.2	141,994	
2012	111,395	73.5	16,715	11.0	9,098	6.0	8,842	5.8	3,464	2.3	1,963	1.3	151,477	
2013	107,174	69.1	21,632	13.9	10,064	6.5	10,077	6.5	3,947	2.5	2,312	1.5	155,206	
2014	100,093	59.7	34,039	20.3	12,222	7.3	12,721	7.6	4,923	2.9	3,628	2.2	167,626	
2015	89,086	46.2	57,581	29.9	15,307	7.9	17,740	9.2	6,084	3.2	6,857	3.6	192,655	

Note: 1994-2009: the number of TITs transferred from trainees; 2010-2015: the number of TIT (1) and TIT (2).

Source: Ministry of Justice, Statistics on Foreign National Residents in Japan, Various Issues; JITCO, White Paper, Various Issues; Immigration Bureau, WhitePaper (*Hakusho*), 2005 and 2010

Vietnam, where the numbers and share rose from 7,922 (7.9 percent) in 2010 to 57,581 (29.9 percent) in 2015. These ASEAN countries, Vietnam in particular, are in the early stages of rapid development, which includes the export of labor to countries such as Japan that take in the exported labor to fill skill gaps. At present, there are vast economic and technological gaps between these countries and Japan, and therefore many people in these countries would like to work and get trained in Japan.

One major reason for the high number of TITs from China, Vietnam, the Philippines, Indonesia, and Thailand is that these five countries have strong economic, trade and investment relationships with Japan. The accumulated data for the period 1994-2015 reveals that 99 percent of TITs originated from these five countries. One can make the argument that economic relationships have been a prominent factor behind the increase of TITs from sending countries rather than the level of economic development and technological needs of the sending countries.

④ **Technical Intern Trainees by Prefecture in Japan**

The acceptance pattern of intern trainees by prefectures in Japan is largely related to two major factors: first, the distribution pattern of industries in each prefecture; and second, the availability of labor determined in part by dwindling birth rate and aging population. Table 5 reveals the acceptance of TITs by prefectures ranked on the basis of total numbers and shares of population and labor force in the prefectures for the period 1994-2015. The Table also provides the annual growth rate of the labor force and the growth of the aging population in each prefecture for further understanding of labor needs there. The table indicates that more than half (54 percent) of the TITs work in 11 of Japan's 47 prefectures, of which first seven prefectures account for about 40 percent of the total TITs. The top 11 prefectures in the table are home to about 40 percent of total population in Japan. The remaining 36

Workforce Development with Japanese Technical Intern Training Program in Asia prefectures, home to 60 percent of the population, accept less than half of the TITs.

The main reason for this uneven distribution of intern trainees in different

Table 5: TITs by Prefecture and Share of TITs in Population and Labor Force

Prefecture	Total TITs, 2010-2015	Share of TITs (%)	TIT's share of population (%) (2014)	TIT's share of labor force (%) (2014)	Growth rate of labor force (2010-14)	Growth rate of aging population (2010-2014)
1 Aichi	99724	10.97	0.25	0.40	-0.63	2.96
2 Gifu	56560	6.22	0.49	0.82	-1.23	2.28
3 Ibaraki	53556	5.89	0.32	0.53	-1.18	2.54
4 Hiroshima	50234	5.53	0.32	0.54	-1.14	2.42
5 Shizuoka	37512	4.13	0.18	0.30	-1.17	2.25
6 Chiba	36979	4.07	0.11	0.18	-1.10	3.47
7 Mie	36971	4.07	0.37	0.62	-1.06	1.91
8 Saitama	33842	3.72	0.09	0.14	-0.82	3.63
9 Osaka	30845	3.39	0.07	0.11	-0.91	2.84
10 Hyogo	28129	3.09	0.09	0.15	-1.06	2.62
11 Okayama	27622	3.04	0.26	0.43	-1.03	2.00
12 Hokkaido	25670	2.82	0.09	0.15	-1.31	2.32
13 Gunma	23437	2.58	0.24	0.40	-1.10	2.37
14 Ehime	22744	2.50	0.29	0.49	-1.39	1.73
15 Fukuoka	19601	2.16	0.07	0.12	-0.79	2.58
16 Toyama	18484	2.03	0.30	0.52	-1.41	2.23
17 Nagano	18305	2.01	0.14	0.25	-1.06	1.58
18 Kagawa	18007	1.98	0.34	0.58	-1.22	2.25
19 Tochigi	17882	1.97	0.17	0.27	-1.08	2.44
20 Kanagawa	17496	1.92	0.04	0.06	-0.69	3.13
21 Fukui	16283	1.79	0.35	0.59	-1.02	1.67
22 Other	219083	24.10	3.15	5.38	-1.17	1.75

Source: JITCO, White Paper, Various Issues; Ministry of Justice, The Statistics on Foreign National Residents in Japan

prefectures in Japan is the strong correlation between the high number of intern trainees and the concentration of large-scale capital-intensive industries, particularly the automobile industry in Japan, represented by firms such as Toyota, Mitsubishi, Honda, Nissan and Mazda. For example, Aichi prefecture, which has the highest number and proportion of TITs, is home to Toyota Motor Corporation, the world's largest automobile company. Toyota based in Toyota City, Aichi Prefecture is the driving force behind Aichi's economy. There are more than 3,100 transportation equipment and machinery related businesses, employing more than 270,000 people, in Aichi. If you add other businesses related to these industries, the number grows even greater. Aichi's total shipment of transportation equipment and machinery accounts for about 30 percent of Japan's total in that sector¹⁷. Neighboring Gifu Prefecture has many metal works, mold and die factories, and parts subcontractors related to Aichi Prefecture's automobile industry. There are also many intern trainees in Ibaraki Prefecture, which has many chemical, machinery, steel, plastics and food product industries, and Hiroshima Prefecture, a well-known manufacturing center and home to large companies such as Mazda Motor Corporation, Mitsubishi Heavy Industries, Japan Steel Works and shipping industry. Ironically, though, our analysis found that TITs are not employed in large-scale, capital-intensive manufacturing plants like those found in large numbers in the aforementioned prefectures. Large scale industries create high demand for Japanese labor force, forcing SMEs and micro businesses in these prefectures, to turn to TITs. This may be the reason why we could find only a small correlation (0.28) between the number of TITs and the negative growth rate of the labor force in the prefectures.

¹⁷ See <https://www.jetro.go.jp/en/invest/region/aichi/icinfo.html> (Accessed on 14 June, 2016) for further information.

Although the TITs' share of the population and labor force in each prefecture is not significant, it seems plausible that a shrinking labor force combined with gradual aging of the population in all prefectures will lead to an increase in foreign labor under various labels to meet the labor shortages in the future.

III. Conclusion

Since the TITP was launched in 1993, the acceptance of 'Technical Intern Trainees' (TITs) has increased tremendously over the years with the exception of a few dips. Contrarily, since 2010, acceptance of 'Trainees' under International Corporation of Japan's ODA (Official Development Assistance) program declined at an unexpected rate. It can be argued that Trainees have been replaced with TITs. Another significant aspect of TITP is that more than three-fourths of the accepting firms were small firms with less than 50 employees, of which 59 percent were micro businesses having only 20 employees. Most of these firms had accepted TITs under the Supervising Organization Type, which is responsible for accepting more than 95 percent of the total number of TITs.

Four main industries namely apparel, food processing, construction and agriculture have been responsible for accepting about 60 percent of the total number of TITs accepted in the TITP during the period 1994-2014. Although the program is open to citizens from all developing countries, more than 97 percent of the total number of TITs accepted from 1994 to 2015 were from China, Vietnam, Indonesia and Philippines, in that order. Among these, 70 percent were from China. The basis on which the trainees are accepted by country is largely related to the economic conditions of the sending country and its social, cultural and economic relationship with Japan.

The 'mismatch' of the 'two-pronged' objectives of TITP (promoting

development in developing countries while providing labor for labor-hungry businesses in Japan) and the different, often contradictory, objectives of the main stakeholders in the TITP (sending organizations in Asia, policy makers and accepting organizations in Japan) lie at the heart of the TITP's problems. The intern trainees view the program as an employment opportunity rather than a training program that allows them to earn money to help their families in their home country. Accepting or implementing organizations in Japan consider the program as an effective and profitable means of solving their labor shortage problems. Despite this, Japanese policy makers continue to insist that the TITP is a major part of its international corporation which aims to transfer knowledge, skills, and technologies to developing countries.

This mismatch of objectives and perceptions has caused a mixed basket of results that include success as well as failures. For example, although the TITP has strongly emphasized that its main purpose is to provide training in technology and management and transfer technology from Japan to developing countries, a study done by us earlier found that the program has not been useful in improving the skills of intern trainees in technical matters, management, computer operation and other important areas of technical knowledge, but the trainees did gain knowledge about Japanese work ethics and habits, make contacts and earn money which helped them in their home countries¹⁸. It is noteworthy to point out here that the opinions on the level of knowledge that trainees gained varied considerably according to their country of origin and this was largely correlated with the level of economic development of their place of origin as well as similarities/differences in sociocultural practices between Japan and the sending country of the trainees.

¹⁸ See, 'Japanese Assistance for Workforce Development with Technical Intern Training Program in Asia: Results of the Survey in Saga Prefecture', Piyadasa Ratnayake and Saliya De Silva, *Saga University Economic Review*, Vol.33, No.34, January 2016, Saga, Japan.

The main reason the trainees did not acquire many technical skills during their stay in Japan is that for the most part, the tasks requiring knowledge about advance technologies were carried out by Japanese employees while the work duties allocated to foreign trainees were mostly labor-intensive, mundane manufacturing tasks. This was a common practice among most of the firms that utilized trainees in their manufacturing activities. Poor government policy making, inadequate oversight and supervision and ineffective methods used to achieve the TITP's goals are among the other reasons why the TITP has fallen far short of achieving what it was designed to do.

The 'remoteness' of the TITP to the general public is recognized as another serious problem with the program. Lack of public awareness of and exposure to the program and its participants has resulted in an emphasis placed on the negative impacts of the program and the failure of the trainees to interact with Japanese society. The intern trainees working in Japanese firms are often not allowed sufficient freedom of movement or communication with their local communities. As a result, the interns' two or three year stay in Japan is mainly limited to factory and dormitory life with their fellow country men or women. They are highly isolated from the general public in Japan. It is interesting to note that although the number of interns has increased in all 47 prefectures, mostly in SMEs, knowledge about this program by the general public remains poor. It is also surprising and unfortunate that most of the accepting organizations in Japan do not allow any studies on the interns. As a result, domestic and international criticism of the TITP persists while attempts to study the problems that lead to the criticisms are thwarted. Put another way, the remoteness and isolation of the TITPs participants becomes a major obstacle in the understanding of various problems faced by not only by intern trainees but also by sending and accepting organizations. Moreover, this closed environment contributes to a lack of development of

friendly relationships between the people in Japan and Asia through the intern trainees.

Finally, it should be noted that it is necessary to do more research and conduct a comprehensive questionnaire survey before coming to a final conclusion. Today, more than 190,000 trainees from about 35 countries are working in about 72 fields in all 47 prefectures of Japan. The present study was mainly based on literature from the mass media, NGOs, the US Department of State, and IM Japan survey materials. Although the present study attempted to minimize the limitations of the literature survey by extracting findings from our previous field surveys with officials and representatives in sending and accepting firms in both Asia and Japan, as well as with intern trainees in Japan, returned trainees, NGOs in Japan and researchers, it goes without saying that the findings of this study can only be expressed with strong limitations and caveats because of a lack of data. Therefore, to go forward with this research it is important to conduct a comprehensive survey in all prefectures encompassing a large sample of trainees in various fields to get a complete picture of the situation and make effective policies towards addressing the goals of the TITP, namely to help developing countries in Asia to develop and address the labor scarcity problems of Japanese firms. There is no doubt that this effort will contribute to achieve sustainable economic prosperity for both Asia and Japan while making a strong socioeconomic relationship based on mutual understanding.

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