

**THE EMPLOYMENT POLICY FOR  
PEOPLE WITH DISABILITY(PWD) IN  
JAPAN: STUDY OF THE SPECIAL  
SUBSIDIARY COMPANY(SSC)**

**By**

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**February , 2016**

**Thesis Presented to the Higher Degree Committee  
of Ritsumeikan Asia Pacific University  
in Partial Fulfillment of the Requirements for the Degree of  
Master of Science in International Cooperation Policy,  
Development Economics**

## **Acknowledgement**

I have to thank all people who provided the invaluable assistance in the preparation of this thesis, which I initially thought to be a mission impossible but it turned to be a mission possible. The preparation of my topic on the issue of employment for the people with disability would not have been possible if without cordial assistance of those people, too many to mention, who gave me the information I needed for my research.

I have to thank Professor Kaoru Natsuda for his advice and valuable support introducing me with a person connected to the Public Relations Department of Japan Sun Industries (JSI) in Kamigawa, Beppu City. Also I have to thank Professor Susumu Yamamoto and Associate Professor Koza Otsuka who supported me while Professor Natsuda was absent due to his research.

I was fortunate enough for the opportunity to attend the 50<sup>th</sup> Anniversary of JSI held at its head quarter and officially headed by His Excellency Emperor (Akihito) and her Empress (Michiko) of Japan.

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## **LIST OF ABBREVIATIONS**

<b>ACA</b>	<b>Affordable care act</b>
<b>JAL</b>	<b>Japan Air Lines</b>
<b>JASCO</b>	<b>Japan Airport Service</b>
<b>JEED</b>	<b>Japan Organization for Employment of the Elderly, Persons with Disabilities and Job Seekers</b>
<b>JSI</b>	<b>Japan Sun Industries</b>
<b>MAFF</b>	<b>Ministry of Agriculture, Forestry and Fisheries</b>
<b>MEXT</b>	<b>Ministry of Education, Culture, Sports, Science and Technology</b>
<b>MHLW</b>	<b>Ministry of Health and Labor and Welfare</b>
<b>PRI</b>	<b>Policy Research Institute of Japan</b>
<b>PWD</b>	<b>People With Disability</b>
<b>SACEC</b>	<b>Support Association for Corporate Employment of the Challenged</b>
<b>SSC</b>	<b>Special Subsidiary Company</b>
<b>SSDI</b>	<b>Social Security Disability Insurance Program</b>
<b>SSI</b>	<b>Supplemental Security Income()</b>
<b>WC</b>	<b>Workers' Compensation</b>

## **ABSTRACT**

This study was focused on the employment policy of people with disability in Japan.

At first the study identified the problem under this policy, which is unemployment issue. This issue is difficult to clarify, because of the insufficient data.

And next step it was focused on the Special Subsidiary Company system which is Japan original and the quota system. It tried to identify whether these system did work and contribute to the employment of disabled people using secondary data and interview.

Third step is based on the economics theory, this study emphasize the productivity issue, even when disabled people face the difficulty to find jobs. Still needs this view point for the productivity as a nation.



## **Chapter 1. Introduction**

### 1.1 Background of the study

People with disability can work. The only problem is lack of opportunity as stated by the founder of Japan Sun Industries(JSI), Dr. Nakamura said 50 years ago.(No charity but a chance)

This problem is similar to the developing countries problem. The lack of opportunity. Author tried to tackle this issue. Especially in here Beppu, where JSI is located.

### 1.2 Statement of the problem

Unemployment of people with disability (PWD) is still a problem in Japan and the worldwide. The problem behind is the priority issue. Tackling unemployment for non-disabled people is highly prioritized than the PWD. The second problem is caused from the fact that they are divided two groups. Which is work force and non-workforce, because the categorization of the illness is dependent upon the severity of the disability. Those who are classified in the non-workforce are supported by the state insurance and pension system..

### 1.3 Research Question

This study focuses on the following key research questions.

- (1) What is the unemployment situation for people with disability facing now in Japan?
- (2) What are the main reasons of the unemployment ?
- (3) How does the Special Subsidiary Company (SSC) contribute to the employment of people with disability in Japan?
- (4) Which policy should be implemented to improve the situation of people with disability for work?

#### 1.4 Significance of the study

Significance of this study is economic and policy implication to the employment of PWD. The economic significance of this study lies on the theory that the productivity of PWD is key behind economic activity. Political implication is the credibility of Quota system which Japan adopted for the improvement of employment for PWD.

#### 1.5 Research methodology

This study uses both primary and secondary data obtained from the Ministry of Health and Labor and Welfare (MHLW). In addition, the author conducted interviews to six Special Subsidiary Companies (SSC) and Japan Sun Industries (JSI) which are

mainly located in Oita Prefecture and also author conducted other interview to the organization and firms which located in Tokyo.

## **Chapter 2. Disability and Unemployment**

### 2.1 Definition of disability

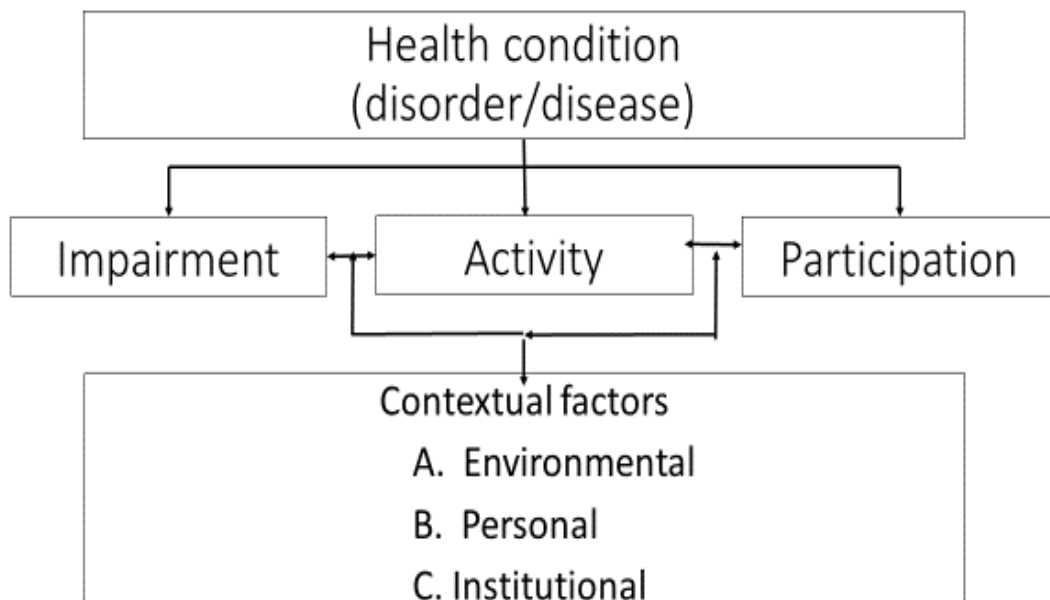
President(-elect) Barack Obama made the election victory speech at Chicago in 4th November,2008 . He said “ Hello Chicago , If there is anyone out there who still doubts that America is a place where all things are possible, who still wonders if the dreams of our founders is alive in our time, who still questions the power of our democracy, tonight is your answer. ....It’s the answer spoken by young and old, rich and poor, democrat and republican, black, white, Hispanic, Asian, gay, straight, disabled and not disabled. Americans who sent a message to the world that we have never been just a collection of individuals or a collection of red states and blue states. We are, and always will be the United States of America.” (Obama,2008)The question is who is disabled and who is not disabled. That is the question.

What is a disability ? At first the World Health Organization(WHO) makes a distinction between impairment, disability and handicap. Disability is a “restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being. ”A functional limitation or

activity restriction caused by an impairment. Disabilities are descriptions of disturbance in function at the level of the person. (e.g. difficulty seeing, speaking or hearing, difficulty moving, difficulty grasping, bathing, eating, toileting.)

Figure1 shows the WHO definition of disability by simplified image.

Figure1 WHO Definition of Disability



The definition of disability changes time to time and new definition were added. Because modern society finds new categories of disability (e.g. difficulty communicating or commuting ).

## 2.2 Causes of disability

Disability was sometimes caused from the congenital or by the accident or through wars. Even aging causes the disability. In the U.S injured veteran who suffers

physically or mentally (Posttraumatic stress disorder) under the war highlighted the aspect of war in their home country. Luckily, Japan had no war after the defeat of World War Two, therefore in 2015 the association of Injured Veteran of Japan ceased their activity because only few elderly injured veteran exist in Japan.

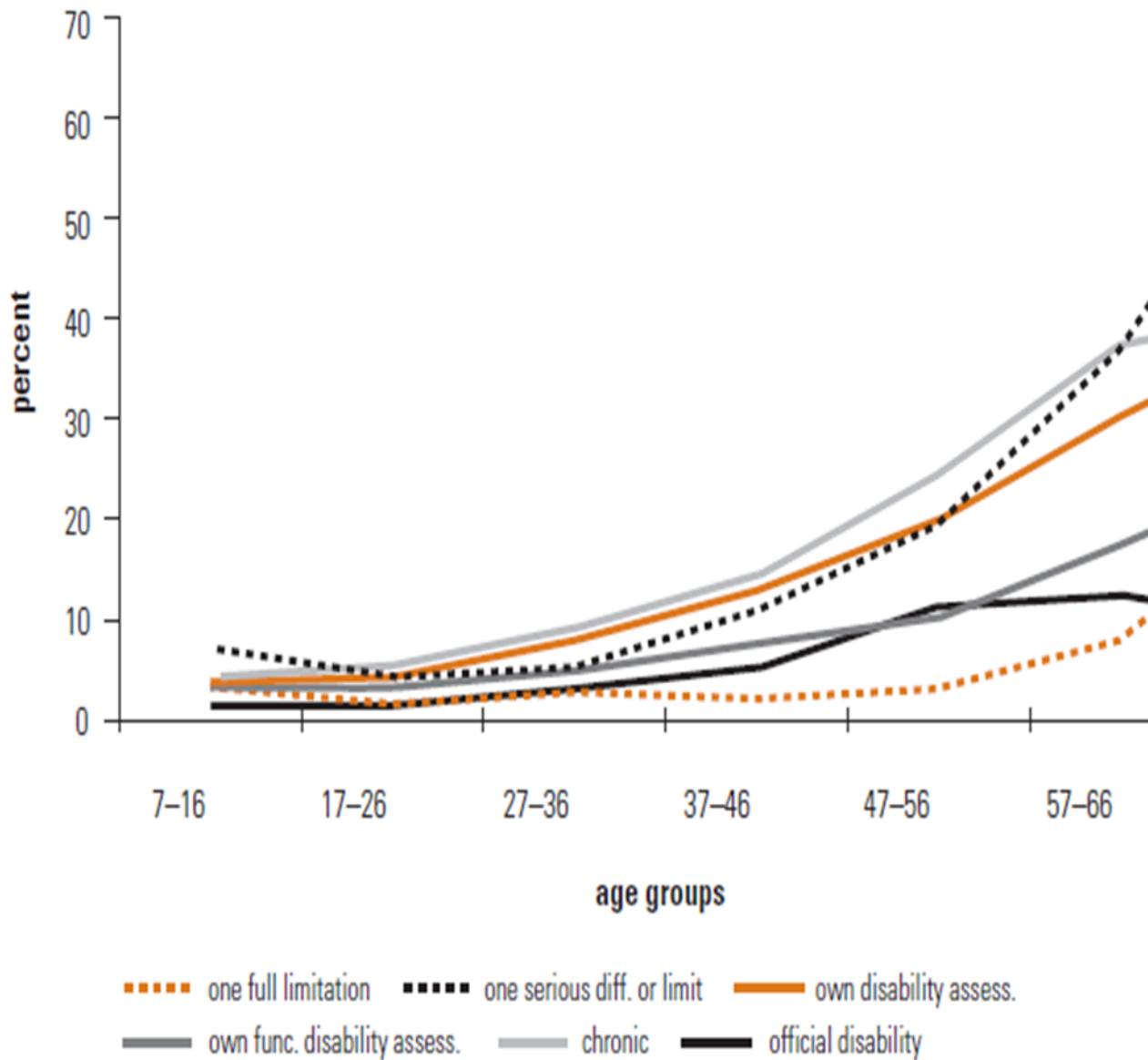
### 2.3 How many PWD in the world ?

Nobody knows, because there are no official statistics even in the United Nation (UN) nor World Bank. The demand for statistics of PWD had greatly increased at the International Year of Disabled Persons (1981). The World Program of Action specifically requested the UN to develop systems for the collection of the information of disability. However still there is no figure and column in the Demographic Year Book of UN 2013.

The census questions which UN endorsed attempt to measure that portion of the population that has a limitation in a basic activity of daily life (e.g. walking, seeing). This fundamental approach could generate the figure of the worldwide estimate of about a 10-12% rate of disability based on the each county's estimate (e.g. Brazil 14.5%, Zambia 13.1%, Nicaragua 10.3%) (World Bank "Disability & Development") World Bank report shows how PWD rate changes by the definition of PWD in Uzbekistan's case.(Figure2)

Figure2 (World Bank: Economic Implications of Chronic Illness and Disability,2008)

## Various Definitions of Disability Incidence in Uzbekistan



## 2.4 How many PWD in Japan?

Japan already disclosed the figure of PWD's population from the Japanese government. According to the government's announcement(2015 PWD annual report based on 2011 census) PWD population is 7.88million (physical 3.94,intellectual 0.74, mental 3.20) the ratio against the whole population is approximately 6% . The percentage gap from the World Bank's estimate in the world figure only can explain discrepancy of the definition to the disability . Japan does not include people with debilitating illness such as HIV/AIDS, chronic alcoholism, epilepsy or rheumatism. This exclusive approach to define disability results lower rate of disability. On this thesis the further study of the PWD's figure is not the main issue.

## 2.5 Jobs for PWD

The Constitution of Japan stipulates on Article 27 saying “ All people shall have the right and the obligation to work. ” Therefore People with disability have a right to work. That is basic human right . Discrimination is prohibited by domestic and international law . The employer has to give them a reasonable accommodation without discrimination like gender, races and religion when PWD wants to be employed.

However depend on the severe-ness of disability some PWD are difficult to work .

These PWD are categorized as non workforce and they live with disability pension

and welfare aid and sometimes their family care.

From viewpoint of economics the best scenario is to minimize the government expenditure of welfare cost for PWD and maximize the labor force in domestic labor market including gender, elders and PWD also. PWD has a right and sometimes responsibility to work depend on the severity of disability .

From viewpoint of individual PWD and business side the best answer is as follows:

- Just like others, the majority of persons with disabilities want a dignified and productive life.
- Employment provides not only income but also opportunities for social participation. This is especially important for persons with disabilities.
- Spending on systems and facilities for persons with disabilities is not for the privilege of a small minority, but an investment for everyone.
- Diverse work groups develop better solutions to business challenges.
- Many companies have found that by employing persons with disabilities they have been better able to understand and serve their customers with disabilities. Adapting Services to meet the diverse needs of persons with disabilities allows business to develop greater flexibility, builds reputation and reaches out to a sizeable market.



(UNITED NATIONS enable, Fact Sheet3)

## 2.6 Disability, poverty and unemployment

“Not only does disability add to the risk of poverty , but condition of poverty add to the risk of disability”(Elwan,1999) . Poverty and disability has some linkage, especially in a developing countries. Malnutrition can cause disability as well as the risk of susceptibility to many disabling diseases. Even developed countries in US disabled population is concentrated in the old age categories and in the minority population and in the group with less education .

Disabled people are poorer as a group than the general population. Well-being is associated with the ability to work and play a role in society. In US their definition of disability is wider than Japan , because people who are disabled(difficulty) to work are called PWD in US, author think. Even in Japan the unemployment figures of PWD has not clarified in the labor statistics , if PWD get a job now it accounts as worker, however if he lose a job then he is a disabled (to work) that means out of statistics from the unemployed workers' category , unless he is registered as unemployed worker for seeking job to Hello Work (Japanese Job Office) voluntarily . .

In Japan at the rural area many PWD are trapped in their parent's home, because

after graduation from the special high school, they cannot find the opportunity to get jobs at their home town (if they decide to go to the big city apart from the parents' support, there is another story, thanks for new quota) which means any job even in the welfare employment(welfare factory).

Table1 shows the average wage of PWD in Japan. Average wage of intellectually and mentally disabled people are not reached on the threshold line of minimum wage. (Minimum wage differs each prefecture though.) However average wage of physically disabled people are close to the Non-disabled worker if they can get a job. Additionally PWD can receive disability pension depend on their severe-ness. The heavy handicapper can receive 80,000yen monthly, medium handicapper can receive 65,000yen, however they have to show the certificate of PWD which is screened and given from municipal government. One problem is each municipal government is slightly different standard of screening, which author heard by interview.

Welfare Employment is kind of sheltered employment by the government's subsidy. Worker of Type A has a labor contract, however Worker of Type B has no contract and wage is nominal. At this moment as far as they can work in even Type B, their parents are happy. Because Type B offers kind of day care service to them and the opportunity of team work building and satisfaction. "These programs are important

in that they give adults with intellectual disabilities a sense of daily routine and purpose. Because these programs are subsidies by the government, the wage paid by the company are lower than ordinary labor costs. Furthermore, such programs keep their members out of wider unemployment (and regular employment) statistics.” (Stevens,2013)

Table1 shows the average wage of each category. Type A wage are smaller than the any open employment. Because many Type A factories has exemption of lower the minimum wage and also they work short hours.

Table 1

### **Average Wages (Monthly) of PWD**

Sources: PWD White Paper 2012by Cabinet Office  
unit: JPY

Open Employment	Physical	254,000
	Intellectual	118,000
	Mental	129,000
Welfare Employment	Type A	72,000
	Type B	13,000
Non-disabled		264,000

#### 2.7 Unemployment rate of PWD

Unemployment rate of PWD ? It is a hard question to clarify .

At first we have to divide work force and non work force from the total of PWD, which figure sometimes move depend on their PWD’s situation like pension, insurance and their will. Japan has no official statistics about unemployment of PWD,

however US has.

In Japan if one PWD gets a job after special high school now he is counted as work force , if he prefers to stay in his parents' house without work and dependent on his disability pension , he will be counted as non-work force. The other problem is welfare employment which is a grey zone especially in Type B.

Table2 shows the situation of employment of PWD in 2006 based on the MHLW survey, however still we cannot clarify the unemployment situation, because that unemployment figure contains non work force include students.

Table2 shows how difficult to find a regular work for intellectually and mentally disabled people. Both type of PWD find works mainly in welfare employment. And Mental disabled people only involve 17.4% as any works include welfare employment. That figures pushed Japanese government to legalize the enforcement measures to employ the mentally disabled people from 2018.

Author joined the voluntary work of mentally disabled peoples' group home located at Beppu. This group home has a restaurant and mental disabled people can work at this restaurant with the assistance of caretaker, it sells lunch box and also it provides affordable price lunch menu to the customer. However this facility is allocated Type B welfare employment. PWD's wage is far below minimum wage. It has vegetable

garden which is leased from farmer. PWD can work at restaurant and farmland also.

Restaurant and their residence is located in a same area, caretaker can take care of

PWD efficiently and 24hours long .

Table2

**Employment Situation of PWD in 2006**

source: This table was prepared by the author based on the results of MHLW survey 2008

(Unit:1,000 person, %)

PWD	Total	Physical	Intellectual	Mental
a. PWD aged 15 to 64	2,050	1,344	355	351
b. Working people(include self employment etc)	826	578	187	61
Working Ratio b/a	40.3%	43.0%	52.7%	17.4%
c. Employed as regular worker	335	280	35	20
Regular worker ratio of worker c/b	40.6%	48.4%	18.7%	32.8%
d. Welfare Employment	172	38	111	23
Welfare working ratio of worker d/b	20.8%	6.6%	59.4%	37.7%
Unemployment %(Include Non-work force & students)	59.7%	57.0%	47.3%	82.6%

Author checked the information based on the JC-NET (Job Coach Network) news, and found the rough figure about the unemployment of PWD aged from 20 to 64 (slightly different above Table 2's range) .

- 1. Employed PWD 500,000
  - 2. Welfare employment 200,000 (outside1)
  - 3. Unemployed PWD 380,000
  - 4. Welfare facility (not working) 280,000
  - 5. Medical institution or staying in their home 530,000
- Total PWD are 1,890,000 and non work force are 660,000 (4+5).

Therefore unemployment rate is 35.1% → 380,000/ 1,080,000(1+2+3)

How about US? Based on the 2014 statistics the US labor department resulted the

unemployment rate of PWD is 13.9% . Please see table3 below. And you can find the large portion of non-work force population. That figure is totally different against Japanese non-work force figure. That is a controversial problem related with the disability insurance. “The steady decline in the disability employment rate and the rise in disability insurance program participation raised concerns about federal disability policy. And the disability reform proposals and provisions within the Affordable care act(ACA). They highlight the importance services as a component of Medicaid Health Homes.”(Bailey and Weathers,2014)

Table3

**Employment status of the civilian noninstitutional population by disability**  
 Source:US bureau of labor Statsitics (Number in thousands)

Characteristic	2014
	16 to 64 years
Civilian noninstitutional population	15,612
a. Civilian work force	4,717
Participation rate	30.2%
Employed	4,062
Employment–population ratio	26.0%
b. Unemployed	656
Unemployment rate (b/a)	13.9%
Non work force	10,895

Table 4 shows how difficult to find a job for each PWD in Japan. Effective job’s number is big, however they(companies) need their own category of PWD like light handicapper or physically disabled people who can handle the IT job like software

maintenance. Mismatching happens there. From 2013 new quota (2.0%) accelerate the needs for the same category of PWD.

Table4

Employment Placement Situations of PWD at Public Employment Offices (Hello-Work)

Source: MHLW report "Employment Placement Situations for PWD"

	2000	2003	2006	2008
Number of applicants	77,612	88,272	103,637	119,765
Number of effective job	131,957	153,544	151,897	143,533
Number of employed as regular workers	28,361	32,885	43,987	44,463
Employment Rate	36.5%	37.3%	42.4%	37.1%

Table 5 shows how many special high school graduates for blind and deaf and other disability can hardly find a regular work. Around 23% is the ratio which can find a regular work. More than half graduates go to welfare facility which has welfare employment attached.

Also you can find the small percentage to go to college. It is far different from the US figure. The US blindness statistics shows 13.7% of the blind people aged from 21 to 64 are the people who have Bachelor's degree or higher, additionally 30.4% of blind people have some college education or associates degree.

Table5

## Career of Graduates from Special High Schools

Source : Ministry of Education,Culture,Sports,Science and Technology(MEXT): School Basic Survey

	Graduation year			
	2000	2003	2006	2007
a. Total number of graduates	11,223	11,480	13,853	14,284
b. College students	532	175	542	481
Education/training institutions,etc	386	390	532	512
c. Employed people(as regular worker)	2,609	2,219	3,148	3,304
Welfare facility (with employment)/medical intitutions	6,175	6,815	7,769	8,256
Others	1,521	1,881	1,862	1,731
Employment ratio (c/a)	23.2%	19.3%	22.7%	23.1%
Tertiary students ratio (b/a)	4.7%	1.5%	3.9%	3.4%

How about unemployment rate of PWD in developing countries ? That is another hard question to answer. United Nation enable's Fact Sheet only introduces from the newspaper comment such as "In developing countries, 80% to 90% of persons with disabilities of working age are unemployed, whereas in industrialized countries the figure is between 50% and 70%."(The Washington Times, 5<sup>th</sup> December 2005)



## **Chapter 3. Employment policy for PWD in Japan**

### 3.1 Quota system

Approaches to the employment of PWD are generally divided into two types . One is the equality of opportunity based on anti-discrimination laws, the other is the employment quota approach which is based on employment quota system . The US adopted an equality of opportunity , Japan adopted a quota approach like many European countries.

The People with Disabilities Employment Promotion Act of Japan aimed the stable employment of PWD. This act contained two important policy, which is the quota system in conjunction with grant and levy system .

Table6 shows each OECD countries' quota and levy amount at 2003.

Table6

**OECD Countries with employment quota at 2003**

This table was prepared by the author and OECD 2003 and Journal of the European Economic Association

Country	Quota	Targeted sector	Levy
Austria	4%	private&public sector >25 employees	€200/m
Belgium	2%-2.5%	public sector only	-
France	6%	private&public sector >19 employees	€150-200/m
Germany	5%	private&public sector >19 employees	€100-250/m
Italy	7%	private&public sector >50 employees	€1,075/m
Japan	1.8%-2.1%	private&public sector >56 employees	€400/m(50,000JPY)
Korea	2%	private&public sector >300 employees	€324/m
Poland	6%	private&public sector >50 employees	40.65%of Average wage
Spain	2%	private&public sector >50 employees	-

3.2 Basic Model and introduction of the theory in quota system for increasing PWD employment

3.2.1 Quota to the labor supply side

Quota system for employment of PWD is a kind of restriction for supply of labor.

Supply line of labor will shift up to the left due to quota which imposed by the government, because this policy increases the labor cost such as investment of barrier free facility for hiring PWD or otherwise payment of levy.

Therefore customer surplus is

$$\Delta CS = -A - B$$

Producer (this producer means worker: labor producer ) surplus is

$$\Delta PS = A + B + D$$

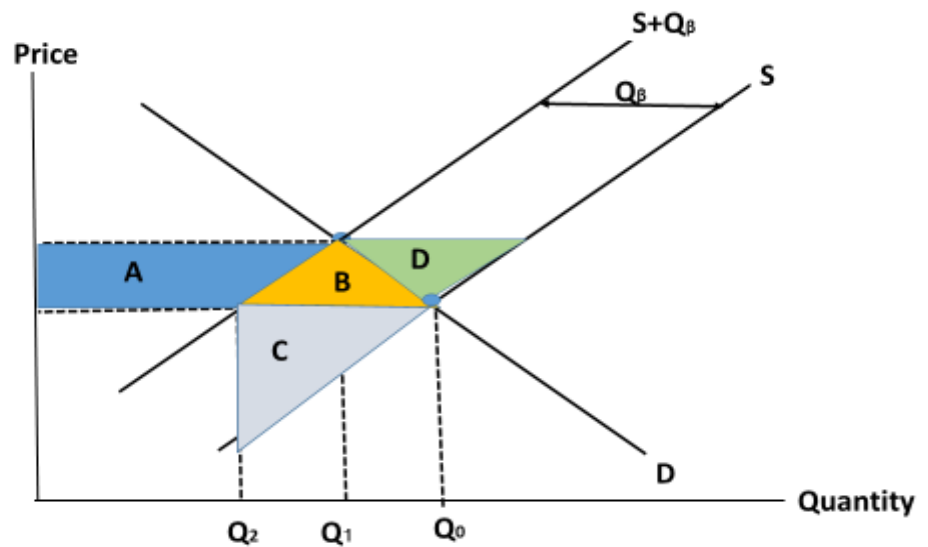
Total change in welfare ( $\Delta CS + \Delta PS - \text{Cost to government}$ ) is

$$\Delta \text{Welfare} = -A - B + A + B + D - B - C - D = -B - C$$

Welfare cost is as smaller as better in efficiency terms. (See Figure 3)

Figure 3

### Labor Supply Restrictions (Quota)



#### 3.2.2 Theory of Quota: Company behavior

Author introduces one theory based on the discussion paper of Policy Research

Institute of Japan (PRI) at 2005. (Nakajima.T & Nakano S.& Imada T.2005)

(1) Demand of labor from the industry

We presume that industry depend on 2 type of workforces(supply): normal workers ( $L_n$ ) and disabled workers ( $L_d$ )

Therefore  $X = f(L_n, L_d)$

Production function defines as follow

$$f(L_n, L_d) = aL_n^\alpha + bL_d^\alpha$$

$0 < \alpha < 1$  , Productivity of PWD shows  $b$ .

On the other hand industry incurs expenses

Normal workers' wage( $W_n$ ) , disabled workers' wage( $W_d$ ), other costs( $C_o$ )

Especially when disabled workers are employed, additional cost required( $C_d$ )

Cost for hiring PWD ( $L_d$ ) =  $W_d + C_d$

(2) Quota

In PWD employment policy Quota(employment %) is used to increase the quantity of workforce of PWD. That means shifting supply curve to up in the PWD supply side, however that effects another labor market (e.g. foreign workers, young workers) to decrease..

We assumes demand of labor is constant at particular moment.

$$L_t = L_n + L_d + \Delta L_d - \Delta L_n$$

### (3) Two types of company's behavior

When each company pursuit profit maximization , two types exists under quota system in Japan.

One type(Company A) is the company which keep employment of PWD satisfying quota, if this company satisfy the ratio of quota and exceeds it, then he can receive the grant 27,000yen per month each additional employment of PWD over the quota.

Other is the company (Company B)which ignores the quota and pays levy whose amount 50,000yen per month multiply the shortage number of PWD employee under quota.

However two types' decision was dependent on the amount of grants and levies. And also the quota rate itself.

### (4) Company A's formula

In order to maximize profit, Company A will act as below.

$$\text{Max} \quad \pi = p_x x - C$$

$$x = aL_n^\alpha + bL_d^\alpha$$

$$C = W_n L_n + (W_d + C_d - S) L_d - \{L_d - \bar{e}(L_d + L_n)\}r + c_0$$

$S$  means subsidy.

The condition on the first step for profit maximization is as below

$$\frac{\partial \pi}{\partial L_n} = p_x \alpha a L_n^{\alpha-1} - (W_n + \bar{e}r) = 0$$

$$\frac{\partial \pi}{\partial L_d} = p_x \alpha b L_d^{\alpha-1} - (W_d + C_d - s - (1 - \bar{e})r) = 0$$

Therefore

$$L_n = \left[ \frac{W_n + \bar{e}r}{p_x \alpha a} \right]^{\frac{1}{\alpha-1}}$$

$$L_d = \left[ \frac{W_d + C_d - s - (1 - \bar{e})r}{p_x \alpha b} \right]^{\frac{1}{\alpha-1}}$$

Productivity of PWD shows  $b$ . If company B does not know the idea of increasing the productivity of PWD. They are paying the opportunity cost and pay the levy also. JSI has the Robocare center in Kamegawa, Beppu city to increase the productivity using new technology like Robot for PWD and other handicapped people which include elderly disabled people and their care workers in the nursing home. If Company B knows the tip of that idea, they may come up to quota level and become company A.

### 3.3 The productivity is a key (PRI research)

PRI also did a simulation under five hypothetical cases as follows.. They compared

from the current policy for the employment of PWD as 2005 to each cases as below.

Case 1 : Levey increase from 50,000 yen per month to 100,000yen (double)

Case 2 : Grant increase 27,000 yen per month to 81,000yen (triple )

Case 3: Subsidy increase 130,000 yen per year to 195,000 (1.5 times)

Case 4: Quota increase 1.8 % (2005 level) to 3.6% (double)

Case 5: Productivity(*b*) of PWD increases double.

Current productivity(*b*) =maximum 0.214 double =0.428

$a = 0.8$  (non-disabled),  $\alpha=0.6$

Case 6: No grant levy system (that means quota is a symbolic figure)

The result shows table7 as follows.

Table 7

Result of simulation							
	Now(2005)	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
companies's percentage below Quota (ratio of Company B)	58.26%	45.87%	52.06%	42.04%	77.51%	29.13%	100.00%
Employment ratio of PWD	1.65%	1.80%	2.54%	3.29%	1.77%	8.34%	0.48%
Labor force of PWD increasing ratio		9.31%	55.32%	103.44%	6.79%	443.97%	-71.05%
Social balance(from now)		-0.69%	-0.08%	0.03%	-0.26%	4.91%	-0.12%
Levy vs Grant balance(+ or - from current)		+	-	-	+	-	+

This report concluded that if quota increases bigger figure (case 4) that result the better

balance of levy Grant system because income from levy increase , however as the whole society balance of society economics worsen .The report emphasized case 5 (increasing the productivity of PWD). If each companies like SSC in Kamegawa share their information of new idea or Kaizen each other to improve their productivity of PWD , that would result a good impact to social balance , it makes same effect as increasing subsidy(case3) but more better impact to society. Coincidentally in case5 employment ratio of PWD is over 8% , this result is similar figure of UNIQULO's figure (8.04%) which author mention later.

U.S. has not adopted quota approach , however in March 2014 the U.S. Department Labor announced changes in regulations for implementing Section 503 of the Rehabilitation Act. Section 503 to ensure the contractors doing business with the federal governments reserve 7 percent of their jobs for PWD. At the state level , Executive Order 14-14 directed all state agencies to increase employment of PWD to at least 7 percent by August2018. (Alfash 2014) However US will not implement grant and levy system into this policy.

### 3.4 Issue about Quota and economics

Some scholars pointed out that the Quota scheme discouraged young PWD go to higher education because they can get assured job right after graduation of special school



(e.g. deaf school) “The quota enacted by the government actually exacerbate the situation since even high school graduates are pretty much assured a job, even if it were a dead-end window-seat job.”(Stevens,2013) The Ministry of Education, Culture, Sports, Science and Technology (MEXT) reported in 2010 about the disability students in tertiary school of Japan , they reported the percentage increased from 0.16% at 2006 to 0.22% at 2009 in the whole students numbers (about 3million students in Japan). In the U.S 9% of college students report having a disability, the number is likely much higher since many disabled students do not report. APU is multicultural university based on the students’ nationality, however students with disability rarely or no exists, even the administration side also. Because the Japanese quota scheme exemplified the employee of PWD number in tertiary organization some extent. After this writing author saw 2 APU international students with wheelchair on 30<sup>th</sup> September, 2015 in campus just before the new semester, it was the first time to see PWD students in APU. Japanese university needs more diversity to accept more students and employee with disability into university.

Author attended the 50<sup>th</sup> anniversary ceremony of “Taiyo no Ie: Japan Sun Industries(JSI) at Kamegawa on 4<sup>th</sup> October, 2015. JSI organized the concert in the afternoon at their hall. Korean quartet of classical music was invited from Korea for this ceremony , because three musicians of this quartet were PWD and were trained in this

facility for one year, 20 years ago when they were 19 years old . They were trained for survival technique like wrenching or screwing of nuts. However Korean PWD did not satisfy to be normal workers after returning Korea. They changed the career afterwards . They went to US for tertiary education and all became professional musician . And one Korean PWD became professor of The Juilliard School in New York. That is the example to cultivate their talent .How about Japan or JSI to cultivate their true talent ?

Scholar argues that antidiscrimination legislation for PWD in US increased education participation instead of improving the employment of PWD (Lalive 2013).

Currently the legal employment rate for employment of PWD of Japan is 2.0% for private sector company, 2.3% for governmental and municipal offices from 2013's amendment( former rate was 1.8% for private company and 2.1% for governmental and municipal office). However private company which employee's number is less than 56 is exempted. Levy forms are to be submitted to the companies that employ more than 200 regular employees (from 2015 number changes to 100). Also school is slightly exempted (30% discounted ratio from the quota ) . The quota system privileges the company that employed the people with severe disabilities by counting twice for the quota requirement.

Recent statistics for employment of PWD at 2014 by MHLW shows the highest employment ratio 1.82% under new quota (2.0%) in the private companies. However Japan has never reached the quota level. This phenomenon prevails any developed countries which adopted quota approach. Because most private companies prefer to pay levy instead of hiring PWD. For example in Germany the quota is 5.0% for private and public sector, however private sector reached 3.7% but public sector reached 6.1% though. In France the quota is 6.0% for private and public sector, however aggregate ratio of private and public sector reached only 2.6% at 2009. (JEED report, 2011)

Oita prefecture where JSI(Japan Sun Industries) and their Joint venture are located shows the second highest employment ratio(over 2.0%) of PWD in the private companies following the top of Yamaguchi prefecture in Japan when quota was 1.8% at 2008. Yamaguchi prefecture shows the top ratio (still under 2.3%, though). The big reason for Yamaguchi prefecture is that the one famous apparel company's head office is located there. This company's name is UNIQLO. UNIQLO shows the 8.04% of employment ratio

of PWD in 2009. Every year this ratio is improving, and UNIQLO is a successful company in domestic and abroad. The number of PWD employee in UNIQLO is 1,245 in domestic and 1,532 in abroad. This figure is astonishing. In 2009, 10.9% had a mental disability, 12.8% had a mild physical disability, 14.7% had a severe physical disability, 28.9% had a severe intellectual disability and 32.7% had a mild intellectual disability in UNIQLO's case. (Stevens, 2013)

This author (Stevens) asked the company's customer service section that what kind of work its employees with disabilities performed. The response was "As for the specifics of the work, while it is mainly work done outside of business hours cleaning and putting out products in the backroom, there are also cases where we have them work inside the stores, attending to customers. Furthermore, at our company, all staff who work at a store for more than 100 hours a month become 'associate employees' (junshain); those working less than 100 hours are casual, while the rest are 'associates'. When we appoint a person with a disability, at each store we appoint them as a rule as an 'associate employee', and, we consider their disability with regard to their work. Furthermore, we offer as much guidance as possible to store managers

who are hiring new staff to help them follow their employees' progress while exhibiting core values of considerations, watchfulness and attention.”(Steven,2013) In 2007 UNIQLO received a prize for public service awarded by the Prime Minister's Office in recognition of its efforts to diversify its workforce.

UNIQLO achieved this goal without establishing SSC(Special Subsidiary Company) .

On the other hand , there are many companies who ignored the quota, MHLW publicly reveals the name of company which has low ratio of employment of PWD annually. One of this type company was Japan Airlines(JAL). When JAL was revealed its name by MHLW as the bad behavior company, Japan Shareholders Ombudsman filed the lawsuit against JAL at 1999 , the reason for suing was that the top managers of JAL had damage to shareholders for paying the large amount of levy every year and ruined the credibility of the company. On the way of court dealing, they reached the settlement . The details of settlement was as follows.

“JAL will improve the employment ratio of PWD from 1.29% as it is to 1.49% of average Japanese ratio till 2003 and then finally reach the quota

(1.8%) level till 2010. To do that, JAL will report the progress to the public on the JAL homepage by internet every year.” The other big name which was revealed by MHLW at 2003 was Japan Airport Service (JASCO) located at Narita Airport. When JASCO was revealed as bad company, JASCO was bashed by TV. First excuse from JASCO was “We paid levy properly, nothing wrong to apologize.” Finally JASCO changed their attitude after accepting advice from municipal government. At 2005 JASCO established SSC for improving the employment of PWD as quick as possible. Their jobs were cleaning of the airport and washing of the dishes served in passenger plane. JASCO improved the ratio of hiring PWD drastically after setting up SSC.

The smaller companies tend to comply most closely to the quota because they cannot afford to pay the levy.

The system of grant and levy is a simple system without government subsidy. If the company is under quota that company has to pay 50,000yen per month multiply the insufficient number of PWD to the account of JEED(Japan Organization for Employment of the Elderly, Persons with Disabilities and Job Seekers) which is under control of MHLW , if the company is over quota that company receive grant 27,000yen month

multiply the number of PWD over the quota from JEED. Also from this account JEED subsidize the companies who wish to improve their working environment for PWD.

Whether quota for firms can help increase the demand of disabled worker? The positive answer come from three reports. One is Austria's literature which says "role of an employment quota for disabled workers in shaping the marginal firms' demand for disabled employment."(Lalive,2013) Results of this report indicate that firms with 25 non-disabled workers (Austrian threshold number) employ about 0.04(12%) more disabled workers than without levy. Also this report pointed out that simple behavioral framework that shows that manipulation can lead either to an upward or a downward bias of the estimated threshold effect for disabled workers. And the sign of the bias depends on whether or not the disability workers' productivity exceeds their wage. This is the question, we have to answer or we have to find the answer in this free market economy by any means.

The other two reports come from Japan. "While this (equal opportunity) approach guarantees remedies against discrimination and allows for flexible responses to specific circumstances, it creates problems for employees attempting to predict what constitutes discrimination. Furthermore, at least at this time, it has not demonstrated positive effects

with respect to the advancement of employment for people with disabilities. In contrast , the Japanese system, which has adopted an employment quota approach, is able to secure positive effects within certain parameters.”(Hasegawa, 2007: Equality of Opportunity or Employment Quotas?) “Japan’s quota system has a positive impact on the employment of persons with disabilities. On the contrary, the employment of persons with disabilities in the U.S. which has a typical antidiscrimination law, American with Disabilities Act(ADA), is lower than that of Japan and the employment rate has not really increased even after the introduction of ADA. It was confirmed that the strengthening of a typical antidiscrimination law for persons with disabilities does not necessary bring about the expansion of job opportunity for them.”(Kudo,2010)

In economics disability is a minor field, because the statistics of disabled is not fully available internationally due to the interpretation problem in each country. However in US we can find several “Economics of disability” titled book or journal related in US domestic disability policy . In US huge population of disability people depend on the several disability insurance e.g. Social Security Disability Insurance Program(SSDI), Supplemental Security Income(SSI), Veterans’ compensation, Workers’ compensation(WC).

“direction of U.S. disability policy must take into account the complex nature of the



existing system-its size, structure, recent growth, economic status, and labor market effects.”(Burkhauser,1982, Disability and Work: The Economic of American Policy)This book tried to provide the background necessary to comprehend the ramification of the proposed change in policy. This book also argued the cost saying that “the cost of assuring equal access to the handicapped are likely to be of a different magnitude than the costs of assuring equal opportunity to racial minorities and women. Equality of treatment by sex and race does not require adapted workplaces, specialized machines, specialized training, altered cafeteria and toilet facilities, alternative means for building entry, and movement between floors.” This book sometimes looks like talking about economy not economics?

Another American journal says the problem caused by health insurance to Disability programs. “In most industrialized countries, the health care needs of persons with disabilities tend to be covered by some form of universal health insurance. In the United States, however, universal health care coverage does not exist, and most coverage is employer-based. As a result, persons who are no longer employed, such as disabled workers, would be required to pay the premiums in order to maintain or obtain coverage. Moreover, because this private sector coverage is experience-rated, firms will be reluctant to offer or to continue employment of a worker with an impairment that is likely to lead to sizable medical costs. For these reasons, a special public program fill this gap for

disabled persons in the United States. Recipients of benefits from the primary cash-transfer disability programs(SSDI,SSI,WC) receive health insurance coverage as part of the benefit package.”(Haveman,2000: The Economics of disability and disability policy)

SSDI recipients are covered by Medicare after 24 months. SSI recipients are immediately covered by Medicaid, and the WC programs pay directly for medical care related to the occupationally based injury. Medicare is a national health insurance program for the aged and certain disabled persons. Medicaid provides coverage under a federal-state program for the low income persons who are disabled(and some other group).

SSDI which supports income and medical cost has grown rapidly from 1960 to 1980, the number of disabled insured beneficiaries rose from 0.46 million to nearly 2.9million, while benefit expenditures on disabled workers plus dependents rose from \$0.57billion to nearly \$16billion. In 1995 reaching 4.2million persons and \$40billion. And the number of SSDI recipients aged 15-64 rose from 27 per 1,000 persons from 1970 to 62 by 1994.

This journal explained the reason (1) the implementation of less restrictive standards for admitting persons with mental impairments to the rolls,(2)reduction in the number of case reviews to verify presence of disabling conditions,(3)accession to the rolls of younger people with longer life expectancies(4)reduction in the number of people leaving

the rolls,(5)increases in general life expectancy due to more advanced medical technology,(6)changes in macroeconomic (unemployment) conditions.

The SSDI recipients who want to work are small number (only 5% did trial work).

On the other hand, SSI program provides income support and medical expense support to aged, blind, and disabled individuals who are poor. The total recipients under the age of 65 rose from 1.75million in 1975 to 4.3million in 1995.The number of disabled children has risen from 100,000 in 1975 to more than 900,000 in 1995. More than 60% of the adult recipients are eligible on the basis of either mental retardation or some other mental disorder.

This journal clearly says that “When job are scarce or pay is low or when disability-related cash transfers are raised or tied benefits-in-kind are increased, there is a clear incentive for disability-based benefits and correspondingly, to reduce their labor force participation.” This book pointed out about the productivity of the nation, saying that “The existence of a health-limited working age population is a drain on the productivity of the nation’s economy and a constant on its growth. It is important to have a sense of both the level and the trend of the costs imposed on the economy over time owing to the presence of these limits on work.” How about the productivity of Japan including the people with disability?

In Japan there is a book which called “Economic for disabled”(Nakajim,2006) not disability. This book is totally different idea from American literature not aiming to solve the trade-off of disability insurance against unemployment of PWD . Instead, this book is trying to solve the unemployment of PWD from the viewpoint of independent PWD by their own involvement. Because in Japan many PWD especially intellectual and mental PWD are institutionalized in public and private facility like prisoners against their will. They are segregated from the society. Then they are nearly lost their own motivation to work. However the conclusion is nearly same, that is increasing the productivity of PWD which results the productivity improvement of the nation.

How?

At first this book introduces the PRI report which author already mentioned (3.2.2 and 3.3). Also this book emphasize the importance of SSC, which is a huge possibility to hire many intellectual and mental disabled people. Because SSC can create jobs for them.

Thirdly this book introduce the theory of comparative advantage instead of absolute advantage which non disabled people have. Which means each PWD has their own comparative advantage. Author will use own version of this theory as conclusion.

3.5What is the reasonable accommodation ?

Based on the Convention on the Rights of Persons with Disabilities adopted by the UN General Assembly in 2006 , Japan's act on Employment Promotion of PWD was amended on 13<sup>th</sup> June, 2013. It prohibits discrimination against PWD in employment and requires employers to make reasonable accommodation. That means Japan now adopted both approach above mentioned which is equality of opportunity and quota approach.

The concept of “reasonable accommodation” has an origin from US. In the US, the Civil Rights Act of 1964 banned discrimination based on race, skin, color, religion, gender or country of origin. Therefore courts ruled out that employer should give reasonable accommodation to workers for guarantee of the equal opportunity. This concept of reasonable accommodation was expanded to include the discrimination of disability. New Japanese law stipulate that firstly employer must take measures for reasonable accommodation when recruiting and hiring workers with disability. After hiring, employer must take steps for reasonable accommodation to PWD in order to improve the situations. The law did not specify reasonable accommodation, however it prescribe “necessary measures ,taking into account the characteristics of the disability” But if taking such steps for reasonable accommodation causes the employer undue hardship, “the obligation to provide it may be waived” (Article 36-2)

## Chapter 4. SSC and JSI

### 4.1 What is the SSC?

When Japan started the quota system and needed an incentive for hiring PWD , Japan introduced so called the special subsidiary company(SSC) scheme for the rapidly increasing employment rate of PWD especially in the large company. SSC was introduced together with the legal employment quota, levy and grant system established by the amended Law in 1976. The legislation was further amended in 1987 especially for SSC scheme.

According to its Section 44 and 45, should an employer establish SSC which gives special consideration for employing PWD , the workers are deemed to be employed by the parent company when calculating the employment rate of PWD .

The specific requirements for the accreditation of SSC are as follows.

- (1) The parent company should control the decision-making body (general meeting of shareholders, etc).
- (2) The subsidiary company should have a close relationship with the parent company .  
e.g. dispatching executives from the parent company to the subsidiary company
- (3) At least 20% of SSC's workforce should be PWD . In addition, the total

(4) percentage of workers with severe physical, intellectual and/or mental disabilities should account for 30% or more of the total number of employees with disabilities .

(5) SSC should have sufficient capacity to manage workers with disabilities . e.g. improving facilities for the benefit of the workers with disabilities , and assigning fulltime instructors.

(6) In addition, SSC should promote the employment of PWD and offer them stable employment .

Legislation were further amended to calculate quota not only for parent company but for the company group as a whole at 2002.

When SSC is established and is reported to MHLW , then MHLW gives subsidy three times from first 6 months periods to SSC. Amount of subsidy shows below table8 .

Table8 (Source : MHLW pamphlet)

### Subsidy from MHLW to SSC

unit: Thousand JPY

PWD Employee Number		10-14	15-19	20-24	over 25
Amount	First 6 months period	10,000	15,000	20,000	25,000
	Second 6 months period	5,000	7,500	10,000	12,500
	Third 6 months period(Final)	5,000	7,500	10,000	12,500

However the employee's number of PWD in SSC covers only 3.7% (9,516) against whole employee of PWD in private companies (255,962) . (2010, MHLW statistics)

SSC faces several challenges in this new circumstances. Mr.Ito who is Doctoral Course

of Ritsumeikan University pointed out by his report of SSC research as follows.

- (1) This employment practices are against the normalization principles which aim to promote inclusion . Therefore this scheme should be categorized as sheltered employment .
- (2) Career development of PWD in the company is limited .(e.g. Move to parent company is impossible )
- (3) This scheme is not widely adopted in another countries (Only Korea follows)  
(Ito, 2012: SSC reports)

Literature about SSC written in English is very rare, because this system is Japan original. Author found only one. This journal (Matsui,2013) explains the background of SSC. Based on this journal's argument, actual employment rate of PWD on the large-sized firms was lower than the medium and small firms in 1980's. Therefore the government of Japan decided to establish SSC system. In 2014, firms over 1,000 employees reached 2.05% average ratio of employment of PWD over the 2.0% quota. This figure exceeded the medium and small firms' ratio. Author explained pro and con about SSC including career development of PWD individual and segregation. Conclusion is not optimistic to SSC's future. "the legal employment quota should be achieved without depending on segregated special subsidiary company system....special subsidiary companies should not be terminal, but transitional employment places for persons with



disabilities by helping mainstream enterprises make their working environments inclusive and accessible.” JSI people who author interviewed also mentioned about this issue. SSC is just a tools to make it happen. It is not a perfect system.

Author found three reports about SSC survey written in Japanese. All three reports based on the questionnaire which was sent to all SSC at that time in Japan. The first report was published in 1999 by Japan Business Federation. The result of this report shows that 87% PWD was physical PWD, another 13% was intellectual PWD, no mental PWD was employed in SSC on that moment. The second was published in 2011 by JEED. Third one was made for the academic purposes by Mr. Ito of Doctoral course of Ritsumeikan University. The people who involved the first report retired Japan Business Federation later. After retirement they organized voluntary organization to support the employment of PWD especially establishing and operating SSC. The name of this organization is SACEC (Support Association for Corporate Employment of the Challenged).

There are books which explain how to establish and operate SSC. They called these kind of books as manual series. Three books are published by commercial publisher which is focusing the establishing and operating SSC. Also JEED published manuals in order to advertise the SSC.

Another book is special purpose to introduce the good practice of employing the

intellectually and mentally disabled person in SSC, this book is introducing the case study of Bridgestone Challenged which is SSC of Bridgestone Co.,Ltd.

## 4.2 The history of JSI and SSC

### 4.2.1 What is JSI ?

JSI (Japan Sun Industries) is located Kamegawa, Beppu City, Oita Prefecture.

JSI is called “Taiyo-no-ie” in Japanese. “Taiyo” means sun. “Ie” means home.

Taiyo-no-ie was named with a wish to be the Sun and the Home for the PWD by the famous novelist , Mr. Tsutomu Minakami whose daughter had a disability.

JSI was established by Dr. Nakamura who was a surgeon and a researcher of the rehabilitation center in Beppu at 1965. Therefore this year 2015 is the 50<sup>th</sup> anniversary of JSI. JSI organized the Joint Venture with the Japanese Big firms such as Sony, Omron, Honda, Mitsubishi, Denso with JSI from 1972. They provide the opportunity to work for PWD. These Joint Venture have name attached Sun or Taiyo, like Omron Taiyo or Honda Sun which is located in Kamegawa or Kunisaki peninsular or Kyoto where Omron has main factory.

JSI's motto is “No charity, but a Chance ” (see photo1). Photo2 shows the big companies' name involved in this JSI joint ventures at the JSI building.

Photo 1 (Author took photo at JSI museum)



Photo2(Author took photo at JSI factory)



#### 4.2.2 Relation between JSI and SSC

SSC scheme was established by Japanese law at 1987. However JSI already started the joint venture with Japanese big firms well before 1987 . Then all joint ventures with JSI turned to SSC style as legal entity . Then JSI itself concentrated to welfare activity such as managing nursing home and another type of offering job for PWD as Social Welfare organization. The other type of employment for PWD is called welfare employment system which has Type A and Type B in Japan. Type B is sheltered workshop and worker has no labor contract with the employer and wage is far below minimum wage because of their severe handicap. JSI is operating supermarket called “Sun Store” based on the Type A scheme, workers’ wage is over the minimum wage and they have labor contract.

In August 2015 Author visited JSI for interview and then after interview author asked the public relation officer to introduce me to several JSI joint ventures to have another interviews , however his answer is negative. He said joint ventures are SSC, JSI is just an investor to them. At this moment JSI has no business transaction to them, only rent payment to JSI using JSI facility from them. He said that he has no connection to joint

ventures.

However author convinces SSC system which was Japan original was made from the hint of JSI success and Japanese government copied the idea of JSI joint ventures in order to increase the employment of PWD, especially in large company.

#### 4.3 Paralympic involvement by JSI and SSC

Dr. Nakamura who was founder of JSI was heavily involved to the Paralympic game. He was the head of Japanese team when Tokyo Paralympic was held in 1964. In 1961 for the first time in the Japan history Disabled Sports Competition was held in Oita prefecture by his advice. International Oita Wheelchair Marathon which started from his leadership is succeeding and reached to 35<sup>th</sup> event in 2015. Dr. Nakamura also supported to International Abilympics to be held in Japan at 1981. Abilympics are the Olympics of PWD with vocational skills, aimed at helping them to become self-sufficient, productive members of society.

SSC also involved Paralympic. Especially Honda Sun has wheelchair Marathon club and some runners are international top class runners, also Honda Sun has workshop for design and producing new type of athletic wheel chair as sports business . There are many Paralympic Athlete in Omron Taiyo, Sony Taiyo. They are training together and competing each other. And JSI has their own gym in their site.

#### 4.4 Technology & Kaizen involvement by JSI and SSC

JSI has a museum in their site at Kamegawa, Beppu city. Visitor can have a look of the history of JSI. Author visited several times , author was always surprised how JSI itself have so many inventions to improve their productivity including their daily life.

One reason is the character of Dr. Nakamura who was founder of JSI, he was surgeon and also he was a true believer of new technology development. He himself was a radio operator and he owns a sports cruiser ship in Beppu Bay, he has his own radio which was modified by himself. Therefore as soon as JSI was established , Technology center was also established in their site. Now Technology center was developed and change the name to Robocare center (see photo3 below).

You can find so many tools to improve the productivity by invention and Kaizen in JSI. These tools sometime are available to any ordinary workers. Author visited Honda Sun. They showed special tools and some are now used to many Honda factories to improve the productivity for ordinary workers .

Photo3(Author took photo at JSI )



Then the theory of improving the productivity in JSI is to “Machinery should adapt to each individual PWD by new technology or Kaizen” On the other hand ordinary workers of the big factories in Japan have to adapt to machinery . Therefore the idea is opposite. From conveyer system to Cell manufacturing system , JSI & their SSC already installed this idea . And this is a new trend of sophisticated production line in

Japan like Cannon , Nikon too.

In UK there is Business disability forum for business society. When business leader join this forum, they can use Technology Taskforce program which aims that new technology provides the single best opportunity to enable the productivity to the disabled community.

#### 4.5 Theory of Productivity and Capital Investment

Like Dr. Nakamura hinted the technology to increased the productivity , Economic theory supported this idea of productivity and innovation ,capital investment by the leverage.

In Marx theory it is easy to explain, because of  $(C + V)$  theory . If the C(Capital) is bigger and additional input of  $\Delta V$ (Variable: include labor) affects big impact to production as far as C is fully utilized. This theory does not mention the quality of C. That is the problem though.

And also we have to recognize the difference between the selling price and production cost which is called added value.

#### 4.6 Challenge under the new law

The new law contains the new quota (2.0%) and the reasonable accommodation approach. Now Government is aiming new measures to promote more employment



for mentally disabled person to the firm and raising the quota again at 2018. JSI and their SSC focused to employ mainly physically disabled person because of the origin. How to increase the employment of intellectually and mentally disabled person is new issue right now in Japan. Then author re-analyzed the SSC in the details of their statistics more closely in recent years figure (see Table9).

Table 9

Details of PWD in SSC

source: This table was prepared by the author based on the results of MHLW survey 2014

Year		2010	2011	2012	2013	2014	2014/2010
SSC Number		283	319	349	380	391	138%
Detail	Physical	4,588	4,871	5,023	5,405	5,674	124%
	Intellectual	4,448	5,311	5,932	7,080	7,849	176%
	Mental	480	701	937	1,378	1,739	362%
PWD Total		9,516	10,883	11,892	13,863	15,262	160%

These figures shows that an another type of SSC which are not JSI type are growing, they are more focusing to employ intellectually and mentally disabled person. What are they ? What is new trend of SSC ?

And the employee's number of PWD of all SSC now covers 4.4% in the whole employee of PWD in private companies (344,852) . (2014, MHLW statistics) That means 0.7% increased than the 3.7% of 2010's ratio. It is a good news for SSC scheme.

#### 4.7 New trend of SSC

New trend of SSC which is focusing to employ more intellectually and mentally

disabled person has two types.

One type is focusing the employment of PWD inside of their business , they target the internal work of the parent company which was used to be outsourcing . This work is not urgent and simple and steady work, such as packing , cleaning, printing. These new type of SSC get their work from the parents company mainly. Ministry of health and labor and welfare (MHLW) organized ten big firms to make model case of hiring mental disabled people in their SSC from 2009 to 2010 by MHLW's subsidy . These ten SSC got the accumulated now-how experienced from this experience. And they spread their experience through seminars which organized by them all over Japan. The parents company of these SSC are the biggest company in Japan (e.g. Mitsui-Sumitomo Bank, Kansai Electric Co.ltd, Shimizu Construction Co.ltd. Daiichi Life Insurance, Daikin , Takashimaya (Department Store) and so on. Also there are several success cases of SSC by employing the intellectually disabled people in the SSC introduced by Mr. Inoue of NHK (Japan Broadcasting Corporation). Most famous case is Swan which was established as special subsidized company of Yamato Holding in 2002. Swan hires intellectual and mental disabled people both.

The second type is totally different approach, which is doing a business in the agriculture, apart from the parents' company business . This phenomenon is a hybrid

of SSC and now MHLW and MAFF (Ministry of Agriculture, Forestry and Fisheries) get together to solve their own problems at once. MHLW needs an opportunity to create more working place of PWD especially intellectually and mentally disabled. On the other hand MAFF needs workforce to work in the rural abandoned farm land which is spotted around , that percentage is 10.6% against cultivatable farm land (2010 MAFF survey), because of elderly farmers gave up farming and could not find the successor and no profitable and no attractive to invest from outside. farming . The average age of Japanese farmers are already 65.8 years old (2010 MAFF statistic). From 2009 government eased the regulation of agricultural sectors to invite private sectors' involvement. Therefore agricultural SSC are easily set up and they can go to agriculture business by borrowing these abandoned lands. And MHLW and MAFF made a coalition to promote this hybrid SSC all over Japan. However thing doesn't go easy.

MAFF is also considering the raise of real estate tax (rates) applied only abandoned farmland. Ordinary farmland is heavily relaxed the rates at this moment including abandoned farmlands, MAFF will charge almost double the tax ratio to the abandoned farmland, compare with the rates of ordinary farmland. If farmers who

have abandoned farmland decide to lease that farmlands to farmland bank which introduces the leaser, then farmers can get the concession rates.

Author attended the seminar which was organized by the NPO(non profit organization) which involved to promote the employment of PWD at Okayama on 28<sup>th</sup> November, 2015. Ms. Muraki who was the vice minister of MHLW till October 2015 came to make a speech (see Photo4 below). After her speech, participant had two sub-committee. One is how to promote the employment of PWD in agriculture, two is how to support the graduate of special high school to get a new job. Ms. Muraki joined the first one which topic is alliance between MHLW and MAFF to promote the employment of PWD focusing intellectually and mentally disabled people living in rural area. “Please give them jobs” simple message but difficult one. The other problem happening in rural area is that local small makers producing parts for industries are losing business competing with developing countries like China. Therefore simple work for PWD is hard to find in rural area.

Japan is facing aged and shrinking society, especially in rural area. 27<sup>th</sup> November, 2015 MAFF revealed the new figure of the population of farmers. The figure of Japanese farmers’ population is 2.1 million only and average age is over 66 years old

age. Agriculture and countryside is brink of collapse, however many disability person with intellectually and mentally handicapped live in same area hoping to do something for their dignity and well-being.

Photo4



#### 4.8 Japanese farming policy and deregulation

After the World War Two, Japanese farmers are protected by farmland law which prohibits the peasant system also capitalism invading agricultural sector. Private sector is prohibited to own the farmland freely still now. However recently especially

after the modification of the farmland law on 2009, deregulation gradually prevailed.

As follows.

- (1) From 2009, over one thousand new private enterprise are permitted to involve to agricultural business by leasing contract with farmers.(See Table10)
- (2) 25% of new comers are food business companies, 15% are agricultural and livestock business, 13% are local construction companies.
- (3) Almost 50% are aiming vegetable growing business including big famous convenience store chain.

Table10

### Private companies utilizing farm lands

source:JA com

	a. Before 2009 (Untill 2009)	b. 2009-2012	b/a
Number of companies	436	1071	246%

## Chapter 5 Case Study of SSC and other organization

Author visited several SSC and the supporting organization of SSC which are located in Kyushu and Tokyo. Also author visited the big Japanese firm which was satisfied the quota without SSC. See table11 which shows the employee details of 6 SSC which author visited.

**Table 11**

### Detail of employee in each SSC

Source: pamphlet and interview

PWD	PWD Total	Physical	Intellectual	Mental	Non-disabled	TOTAL
Mitubishi shoji & Sun	61	43	1	17	34	95
Sony Taiyo	108	77	0	31	58	166
Honda Sun	95	78	12	5	105	200
Omron Taiyo	32	27	1	4	32	64
Tama Agri.	20	4	9	7	61	81
TOTAL	316	229	23	64	290	606
SWAN	35	0	35		54	89

## 5.1 Mitsubishi shoji & Sun

The main office of Mitsubishi shoji & Sun is located in JSI building at Kamegawa, Beppu City and this company has Tokyo office and Hokkaido office. The main job is software designing, data input and maintenance of server. Company enjoys profit every year. Accumulated profit is 168million yen on the end of 2014 financial year.(Mitsubishi shoji & Sun homepage).Dr.Nakamura who is founder of JSI predicted the computer age coming when this joint venture was set up. He believed the equal opportunity for PWD on this field. The CEO of this company is physically disabled person who was polio patient in his early age and he promoted from the local employee . Main job comes from the parent company's order, however competition to receive the order from the parent company is fierce against another outsourcing company. Intellectually disabled people is not suited to work in here, counted only one (see Table 11).



The office is clean and beautiful, some employee wears suits and tie. Author met the officer of Administration Department, she looked very busy and this interview was cut only half an hour. However this SSC enjoy high productivity, because company is located in the 2<sup>nd</sup> floor of JSI building which means any additional investment for physically disabled person is minimized and employee are trained before joining this company by the municipal government training center of PWD for computer learning. Also parent company satisfied the quota because of this SSC. This is the typical example of win-win situation for PWD and Mitsubishi shoji Co.,Ltd which is parent company of this SSC.

## 5.2 Sony Taiyo

Author visited the main factory of Sony Taiyo at Hiji Town in Kunisaki Peninsular. Sony Taiyo moved from the old factory in Kamegawa to this new factory in Hiji at 1988. This new area owns JSI. Sony Taiyo pays rent to JSI. The manager of Human Resource and General Affairs Department welcomed the author. The manager spent two hours to explain his company include factory tour. He is non disabled however he was hired by Sony Taiyo locally. Usually manager of SSC was dispatched from the parent company and they are different salary system and they work temporarily in SSC. Contrarily he was dispatched from Sony Taiyo to Head Office of Sony in Tokoy to

work diversity program in some years. He is proud of his career.

Because this Sony Taiyo is the best model case of SSC in Japan, author thought after the site visit.

The important points are below

1. Sony Taiyo is a profitable company for long years in Sony Group.
2. Without any help from the parent company, Sony Taiyo is a kind of independent and self-sufficient company unit in Sony Group. The key is Sony Taiyo's products which have its own brand (High-Res. ) and specialized high quality microphone. The quality is the world best. Sony Taiyo is not a parts making factory like a low price OEM parts maker. Sony Taiyo makes the final products. Producing the world No.1 quality microphone is their responsibility including maintaining the Brand and aftercare service. Sony Taiyo has a repair shop inside the factory which accepts the repair and trouble shooting of Sony made microphone even after the guarantee period.
3. Their motivation is very high and aggressive. The neighborhood JSI has welfare facilities like a nursing home and Type B facility and cafeteria. Sony Taiyo used to share the cafeteria as a customer. Then this cafeteria raised the price for their profit. Then the employees of Sony Taiyo complained the price and poor

taste designed for the elderly patients in nursing home of JSI. The employee of Sony Taiyo moved to build their own cafeteria by themselves. The administration of Sony Taiyo accept their request , however condition to accept this project is the monetary sources , which has to come from their own profit. So employee saved each year some portion of the company's profit and accumulated profit finally made their dream come true, which is this new cafeteria.

4. Sony Taiyo has human treasures, some employee have special talent like sensibility to high hertz sound. These know-how come from their unique experience to compensate their disability, author think. These employee are getting older, now company are making effort to hand over these secret tips to young employee by OJT (On the Job Training).
5. Sony Taiyo does not owe to the Parent Company Sony, on the other hand parent Company Sony owe to Sony Taiyo. Because Sony Taiyo are accepting Sony group employees' training and seminar about diversity learning from domestic and abroad. Therefore Mr.Hirai, CEO of Sony is proud of Sony Taiyo. He came to Sony Taiyo often, and he came to JSI 50<sup>th</sup> anniversary ceremony held on 4<sup>th</sup> October, 2015 and also he came to this 35<sup>th</sup> International wheelchair marathon

held in Oita at 8<sup>th</sup> November, 2015.

This Sony Taiyo enjoys the high productivity which include added value. And cost efficiency because this factory is located inside of JSI new area at Hiji town where every building was designed for barrier free. And also Sony satisfied the quota well beyond. This is another good example of win-win situation for PWD and parent company of this SSC, which is Sony.

However you can see no intellectually disabled person hired in this company on the table 11 . Author asked him about this point, he replied that Sony Taiyo is eager to hire these people , but no suitable job is available for them at this moment. Because this company is not a charity organization. Company hire the PWD for its own purposes. The officer who author contacted for this visit is a nearly blind young male officer. He wears sun glasses, he can see only little like brightness or darkness , however he can input PC by blind touch and he graduated the university after being employed by Sony Taiyo , because he determined to develop his ability more.

Sony group has another SSC in Tokyo metropolitan area named Sony Hikari (Brightness), which aims to hire intellectually and mentally disabled person more. This is one of the new trend SSC, their job come from parent company,

like printing, packing such kind of simple job.

### 5.3 Honda Sun

Honda Sun is located in Hiji town. Honda Sun moved from Kamegawa to this new area at 1995. This new factory was designed for barrier free by Honda. The front page of the company's pamphlet proudly declared that "There is no class of human being who should be considered handicapped. And no two persons alike . Each individual possesses unique and wonderful characteristics different from others. When such individuality is being recognized, each individual is able to enjoy personal autonomy. Even if one is physically or mentally challenged, there should be no obstacle to his/her right to live like any other human being. To be able to contribute society and live a 'normal' life as a person, rather than as 'handicapped' This is expressed by our slogan: Dream, Hope and Smile: We are the creative challengers." (Challengers, 2015)

On the second page the president of Honda Sun made his introduction to this company as follows " Our company was established as special subsidized company of Honda Motor Co., Ltd, based upon the ideal of 'promoting social independence of physically or mentally challenged people' which was put forth by Dr. Yutaka Nakamura and Soichiro Honda. We are striving to become a model

company for the world where all associate, regardless of whether physically or mentally challenged or not, bring their own distinct flavor to the workplace and contribute to society through their work. With the shared belief that ‘quality is built by people,’ we take a creative approach in the area of development and production of automobile parts and components. ...”(ibid.)

Honda Sun called “physically or mentally challenged” instead of calling people with disability. Several SS in Japan sometimes use this name like Bridgestone Challenged. Even in APU author had a discussion about this employment of PWD issue with Tajik student, he mentioned proudly that in his country they don’t call these people as “disability people” instead, they call “challenged people”. In this thesis author use disability, because United Nation and the Academics still use this terminology. Ethically “Challenged” sounds better.

Honda Sun produces the auto parts, another SSC which is located in same area, named Honda R&D Sun. This SSC produces interesting products. Honda R&D Sun is responsible for conducting research and analysis applying the CAD technologies. Honda R&D Sun is also involved in a wide array of fields such as the development of medical and rehabilitation equipment and surprisingly wheelchairs for competitive sports utilizing its unique knowhow. Recently

Honda R&D Sun donated sports wheelchairs to Chinese Paralympic team. See photo5 below. Author could not enter inside this R&D area because of the sensitiveness of the new technology, however this sports wheelchair is exhibited in front of the R&D room with the name of Paralympic athletes who are working in Honda Sun and Honda R&D Sun.

Honda Sun is another good example of highly success SSC. Also this company enjoys the atmosphere inside factory which has many athlete poster and Kaizen group poster. It looks like they are enjoying working in this company.

Photo5 (Source: Honda Sun Topic News)



#### 5.4 Omron Taiyo

Omron Taiyo is located in Kamegawa, Beppu City. Omron Taiyo Kyoto is located in Kyoto. Omron Taiyo is established at 1972 as the first joint venture with JSI. The founder of Omron, Mr. Tateishi accepted this request of the joint venture with JSI from

Dr. Nakamura.

Author visited the main No.2 factory in Kamegawa, Omron Taiyo has 2 factories in the JSI site. No.2 factory is big and new. The officer who offered the factory tour is wheelchair athlete, he just came back from Central Asian Game held in Kazakhstan which he joined as weight lifting athlete. He is energetic and he conducted site tour including No.1 factory across the street. No.1 factory is not the work place for the employee of Omron Taiyo. Omron Taiyo offers job to JSI worker who is more handicapped, therefore No.1 factory's worker is welfare employment worker who is dispatched from JSI itself. 2 types of workers are working over there Type A and Type B. Type B's job is simple job, like packing.

Omron Taiyo is a parts maker especially sockets and switches.

In Omron Taiyo, physically handicapped person are the main employee in disability employee, however 50% of total employee is non-disabled employee. The officer pointed one employee who is working here with the disability caused by the Thalidomide drug abuse.

#### 5.5 Tama Agri.

Tama Agri. was established as SSC of Tama Home which are housing company in Tokyo, on 2009. Tama Agri. is located at Chikugo City, Fukuoka Prefecture which



place is used to be the head office of Tama Home before moving to Tokyo. Tama Home has three thousand employees, firstly Tama Home tried to create internal jobs for PWD, but it was hard to find, then this company decided to establish SSC for producing vegetables in their old home ground. Therefore this SSC is a new trend of SSC, aiming the agriculture business hiring the intellectually and mentally disabled person utilizing the division of labor for them.

Farmland which space is 3.5 hectares is leased from the several farmers. Tama Agri. produce lettuce, asparagus and several vegetables. Tama Agri. sells these vegetables by internet shopping site.

Agriculture is based on the nature, farming itself has some kind of remedy to the people, especially mentally handicapped people.

At this point nobody quit this job. However Tama Agri is not profitable at this moment. In their office Tama Agri has the job of printing and enveloping of direct mail service for the parent company. When harvest season comes, labor shortage happens in that particular moment. At that time, owners of the farmlands who are elder farmers join their harvesting and earn some additional money. “ This is the win-win situation.” the manager of general affairs department said. This manager is dispatched from the parent company, however he is doing his best to survive this hard

situation. Tama Agri. is selling their own brand tea (see photo5) and packed fruit juice from his idea. When the parent company do the campaign for their housing business, they sometime purchase these goods. Vegetables are grown in the indoor vegetable garden (see photo6).

New CEO of Tama Agri. came from the agriculture specialist, therefore this company is keeping the best effort to be the model case of SSC in the agriculture business.

Photo5(Author took photo at Tama Agri. office)



Photo6 (Author took photo at Tama Agri.'s vegetable field)



## 5.6 SWAN

Author visited Swan which was established as special subsidized company of Yamato Holding in 2002. Under Yamato Holding, Yamato Transport Co., Ltd., exists which employee is 159,844 at 2015. Yamato Transport covers all over Japan and abroad by their sophisticated courier service. Former owner and CEO , Mr. Ogura established Yamato Welfare Foundation and Swan by his will. Swan has bakery shops which name is Swan Bakery & Café where 35 PWD employees and 54 non-disabled workers are working. All PWD are categorized intellectually or mentally disabled, no physically disabled employee there. Author Visited Swan bakery & Café in Ginza. They do business as ordinary Bakery & Café. Therefore Swan doesn't show any signs

where this shop is operated by PWD. Swan is competing against other competitor as business. Swan is enjoying sustainable profit, Swan pays each employee over the minimum wage. Secret tip is 1. Bread Dough is purchased from the Takagi Bakery as frozen condition 2. Division of labor as possible as small by unit of work to keep the productivity for intellectual and mental disabled 3. Shop location is the key for success. Swan has no job manual for the disabled worker. Non-disabled workers give an advice to each disabled employee according an individual situation. Non-disabled workers have responsibility to keep busy for disabled workers. To do that Swan organizes many campaign to attract customers by the effort of non-disabled workers. Swan already have stable customers, then Swan is planning the agricultural business to supply the vegetables for Salad to Swan shops now.

Swan brand shops located 21 places in Japan including JSI area, Kamegawa. However only 4 shops are owned by Swan. Another Swan Bakery & Cafe are franchised like JSI Swan in Sun Store.

## 5.7 SACEC

Support Association for Corporate Employment of the Challenged(SACEC) is located at downtown Tokyo. Author visited their small office. All staffs are specialist of SSC. SACEC made the manual of establishing SSC. In Tokyo, managers of SSC

organize the committee for exchange the information in SACEC. However SACEC is still unknown status even in this employment for PWD. However MHLW and Japan Business Federation(KEIDANREN) supports unofficially

## 5.8 JEED

Japan Organization for Employment of the Elderly, Persons with Disabilities and Job Seekers(JEED) is located in each prefecture. JEED is a public organization under MHLW controls. Grant and Levy goes to the account of JEED. They provide many pamphlet to explain the subsidy for PWD, grant and levy system. They have a training facility also. Each month JEED publishes the magazine to introduce the model case of employment for PWD.

When author visited the JEED Oita office, the person in charge of this matter welcomed the author. And he gave a lot of materials made by JEED in Tokyo. He emphasized the importance of SSC to increase the employment for PWD. He said if the local company of the medium size decide to set up SSC, that is the booster of improving the employment of PWD. He wanted a best example in Oita prefecture in stead of JSI which involved the Big companies.

If the local companies set up one business cooperative and that co-op hire the PWD, then each local company can count a portion of that PWD numbers as their

own quota MHLW stipulate. However best practice is rarely find.

#### 5.9 Idemitsu Co.,Ltd.

Author visited Idemitsu Co.Ltd in which author use to work before APU. Idemitsu satisfied the new quota without establishing SSC. Author met the officer who is in charge of hiring PWD in the human resources department and also author visited the training facility for the Idemitsu education program where most PWD are working.

Idemitsu was well aware of new quota (2.0%) before 2013, and the trend of more hiring mental PWD. Idemitsu created the new job for the intellectually and mentally disabled person. Details are as follows,

- (1) Set up cleanliness team (cleaning Idemitsu's facility, e.g. building, factory, laboratory equipment)
- (2) Set up office job supporting team (packing the envelope, printing)
- (3) Set up gardening team (for garden inside Idemitsu factory, or donating flowers to welfare facility) (see Photo7 below)

Photo 7 (sources: Idemitsu presentation material)

## New team (Cleanliness & Office support)

出光



注：肖像権保護の観点から無断転載を禁止する

Above (1) job is created by cutting order of outsourcing work (2) packing and printing is created by transferring from internal each department job.(3) is created by reutilizing the abandoned hydroponic facility of Idemitsu.

Therefore capital investment is minimum, and Idemitsu already satisfied new quota, and now other firms who are interesting how to adapt new quota are coming here to find the know-how. Author asked the productivity to the officer whose in charge of this project, he replied that this project is not a business oriented. Most important point is minimizing cost and satisfying the quota simultaneously. That means cost of hiring PWD is acceptable cost as far as it minimized and satisfied the quota. Idemitsu has no responsibility to make profit from this job.

Job coaches to these PWD are hired from outside, however Idemitsu is

considering internal job coaches from human resources department to this section.

In any big firms there are mentally disabled person inside but doesn't have certificate of mental disability, in Idemitsu case these mentally disabled person belongs to human resources department , they have few job which can be allocated to them because of illness. Idemitsu is considering these mentally disabled person can be job coaches. Author could not reply properly.



## Chapter 6 Conclusion

### 6.1 Criticism against SSC

Author introduced the criticism at chapter4. However in Japan, SSC is still needed for the progress of employment of PWD. See pro and con table12 below.

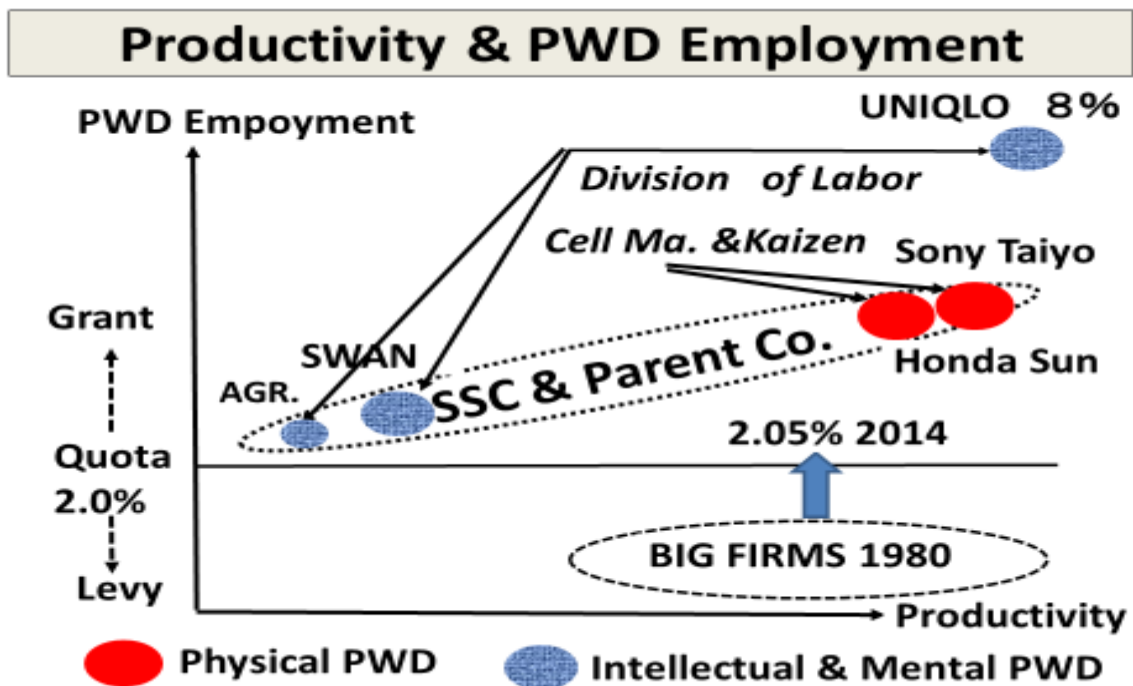
Table12

#### PRO & CON of SSC

	PRO	CON
INVESTMENT	Efficient (Limited space)	Segregated
COMMUTING	Efficient (Parking Lot & Big elevator)	Sometime isolated from city.
SUSTAINABILITY	Semi-Individual Company (and supported by parent company also)	Difficult to keep profit
CAREER DEVELOPMENT	SSC Original	Hard to promote . Especially to parent company
SALARY SYSTEM	SSC Original	Not equal (low) to parent company

If we focus on the productivity of PWD, SSC did a remarkable progress for physically disabled person especially JSI joint ventures. Please see the figure4 which is an image of productivity and employment relation of categorized PWD. Red color circles are SSC which mainly focused to maximized the productivity for physically disabled person, blue color circles are SSC and one exceptional TOP company (UNIQLO) hiring mentally and intellectually disabled person. Many SSC are struggling how to improve the productivity of mentally and intellectually disabled person, exception is only UNIQLO. Therefore SSC are still needed in Japan.

Figure4



## 6.2 SSC and productivity with Comparative Advantage Theory

If each person has their own ability, same theory applies to PWD using comparative advantage theory.

Please see table13 below which explains of the efficiency to provide one service unit to society or market as simplified model as possible.

Non-disabled people has an absolute advantage to provide any service. However if the number of non-disabled people is limited like Japan especially young work force, they cannot occupy every job. Therefore comparative advantage theory applies. On this table non-disabled people had better to work as a receptionist or keyboarding. Physically disabled person can work in the keyboarding or cell manufacturing system

factory like Sony Taiyo, mentally disabled person can work in the keyboarding or cleaning in controlled limited hours.

On the other hand intellectually disabled person had better to work in cleaning job or harvesting job in agriculture. If all they can work in suitable places, and they earn each wages and exchange each service in the same company or in the whole society, aggregate income will be bigger than the absolute advantage theory which has no available job to PWD. If many PWD are categorized as non-workforce like US and dependent on the disability insurance or welfare aid, these phenomenon causes huge loss to society and country and well-being for individual PWD also.

Table13

HOURS OF LABOR REQUIRED TO PROVIDE EACH SERVICE UNIT

Author made this table

		RECEPTION	KEYBOARDING	CELL SYSTEM	CLEANING	HARVESTING
Non-disabled		1	1	1	4	1
P	Physical	5	1	2	10	10
W	Intellectual	10	8	10	5	5
D	Mental	8	3	4	5	6

Japan is shrinking in the population number, because of falling fertility rate. Also ageing society pushes the shortage of labor, one way to remedy that situation is to mobilize PWD into the suitable workplace like SSC to take advantage of every person's ability to contribute for Japanese economy.

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