

3. Securing and Training Personnel in Databases Enterprises

Based on the interview research on enterprises concerned with databases, issues regarding personnel management can be summarised as follows.

Like other enterprises in Japan, data base enterprises need generalists. Database work requires highly sophisticated expertise and technology. However, all of the enterprises we contacted emphasised the need to train versatile rather than specialised workers. The head of Nihon Keizai Shimbun Data Bank Division, for example, can do the work of a system engineer, a consumer service person, and an editor of a pamphlet on databases. Reporters and database staff sometimes swap places.

When such enterprises need more specialised knowledge, experts from outside universities and research institutes are sought, or other firms asked to conduct part of the work. Japan Information Center of Science and Technology and Nihonkeizai Shimbun are examples of such organisations which seek outside expertise.

In this context, we can see the problems these enterprises face. Although highly sophisticated knowledge and technology are necessary, enterprises cannot allow too much specialisation, which might result in inconvenience in personnel management and reduction in the flexibility of firms to adapt to changing environments. In addition, enterprises cannot train highly specialised personnel.

Under these conditions, individual firms are trying to train generalists with some moderate expertise and technological skills. When they need highly specialised expertise and knowledge, they seek outside experts.

Database enterprises already had fundamental technologies when they entered the industry and are developing databases by building on their technology and personnel skills. For instance, Nichi-Gai Associates used to specialise in the computerised editing of books, especially dictionaries. Now they have started a database development consulting business based on their accumulated experience. TV broadcasting companies and advertising agencies are enterprises producing videotex visual images. They have been involved in similar work before their involvement with databases. This illustrates the fact that development of database business requires established know-how in similar types of work.

Thus not a many new college graduate is absorbed in database enterprises. As *Table III-4* shows, many enterprises express difficulty in securing the experienced skilled workers, but few refer to a shortage in the total number of workers. There are not any common special skills and knowledge, academic background, aptitudes, and other particular characteristics for workers in the database industry. Today most of the enterprises in the industry see databases as an advanced investment, and the industry is made up of people and organisations with various knowledge and skills which can be used for databases. Furthermore, the database business itself has just begun, so its personnel education, training, and maintenance are not yet organised systematically in Japan.

Chapter 4

DEVELOPMENT OF TEMPORARY MANPOWER SERVICE AND STRUCTURAL CHANGE OF THE LABOR MARKET

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1. Introduction

Rapid growth of business service industry is observed recently. This paper focuses on the temporary manpower service dispatching clerical staff and clarifies its actual situation, the factors which have contributed to the development of this industry and its impact on labor market structure.

The reasons why this paper particularly focuses on the temporary manpower service dispatching clerical staff are as follows.

First, this industry has developed remarkably during the past ten years or so.

Second, a more important reason is that the development of this industry is expected to give not a small influence on the enterprise-based internal labor market and the industrial relations within the enterprises, especially those of the big enterprises.

Third, the temporary manpower service industry is absorbing many female workers, while an increase of female labor supply has attracted wide attention.

The following four aspects will be discussed.

- 1) The present situation of the temporary manpower service dispatching clerical staff. In other words, how and to what extent the temporary manpower service has been utilized, how it has developed, which kind of workers are employed and how they work will be discussed.
- 2) The factors which have contributed to the growth of the temporary manpower service. Both factors of the demand side (that means those enterprises which need and utilize the temporary manpower service) and of the labor supply side will be clarified.
- 3) The labor market and the personnel management in the temporary manpower service industry.
- 4) The impacts of the temporary manpower service on the internal labor market of those enterprises which utilize the service.

2. Present Situation of the Temporary Manpower Service

Table 1 shows to what extent the temporary manpower service has been utilized. According to this Table, 8.8% of the replied companies have utilized the temporary manpower service, and it can be said that the utilization of the temporary manpower service has not diffused yet. However, the larger the size of the company is, the higher the degree of utilizing the service is, with 43.0% of the replied companies with more than 5000 employees utilizing the service.

The fact that the large-sized companies utilize the service to higher degree may be explained from the following two aspects. First, the job content is clearer in the large-sized company, which enables the company to provide the job for the temporary clerical staff. Second, the temporary manpower service costs much (because the management cost is added to wages given to the staff), and it is difficult for the small- and medium-sized companies to bear the cost.

Table 1: Percentage of Companies which have Utilized Temporary Clerical Service during the Past 1 year
(the number of the companies)

Size of the company	Total	have utilized office service											
		Total	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
Total	100.0	8.8	0.6	0.4	2.9	2.4	0.9	1.1	0.4	0.8	0.2	1.9	1.6
More than 5,000 employers	100.0	43.6	10.6	7.1	8.9	16.0	14.2	8.5	11.7	8.5	4.6	6.7	6.7
1,000 - 4,999	100.0	30.4	5.4	4.2	7.5	9.6	6.7	4.5	3.8	6.6	1.9	4.9	3.5
300 - 999	100.0	20.3	2.7	1.6	4.0	3.8	2.9	2.1	0.9	4.7	1.3	4.5	4.2
100 - 299	100.0	10.7	0.6	0.7	3.3	2.6	1.6	0.9	1.2	1.2	0.6	2.2	2.4
30 - 99	100.0	6.7	0.3	0.1	2.5	2.0	0.4	1.0	-	0.2	-	1.5	1.1

Note: (A) Receptionist (E) Typist (H) Telephone operator
(B) Office worker related to trade (F) Office automation equipment operator (I) Interpreter
(C) Accounting, sales clerk (G) Telex operator (J) Sales staff at shops
(D) Other general office worker (K) Deliveryman

Source: "Survey on Employment Management 1984" by Ministry of Labor

Table 2 shows how the service has been utilized. It should be noted here that the classification of the type of the temporary manpower service is not exactly the same for each survey (for example, the classification in Table 1 is different from that in Table 2) and that the simple comparison of the results drawn from different surveys makes no sense.

While we bear this in mind, Table 2 suggests us the following two points.

First, the term and the time of utilizing the service varies with the type of clerical work. For example, reception, secretary, typewriting (English/Japanese), and others are the types of work for which 60 to 70% of the replied companies utilize the temporary clerical staff almost daily throughout a year. On the other hand, for simple clerical work, clerical work related to trade/import/export/shipping, sales clerical work, and general affairs, there are those companies which utilize the temporary staff almost daily throughout a year and those which utilize the temporary staff as it becomes necessary, both in approximately the same number.

Second, however, the term and the time of utilizing the service is not fixed for each type and varies with the companies which utilize the temporary clerical staff.

Table 2: Utilization of Temporary Clerical Service during the Past 1 Year
(the number of the companies)

	(A)	(B)	(C)	(D)	n.a.
Simple clerical work	45.2	8.4	10.3	36.0	0.2
Filing, documentation	47.8	40.9	0.7	10.6	-
Secretary	64.6	6.5	6.6	22.3	-
Reception	72.3	6.5	10.9	10.3	-
Accounting	17.7	24.1	17.8	40.4	-
Trade, import/export, shipping	50.4	4.2	4.7	40.7	-
Clerical work for sales	42.4	4.2	3.8	49.7	-
General affairs	46.5	19.4	-	34.1	-
Patent related clerical work	20.4	-	-	-	79.6
Research, calculation	27.3	36.7	5.9	30.1	-
Interpretation, translation, stenography	52.5	2.4	-	45.1	-
Typewriting	60.6	2.2	2.3	35.0	-
Word processor operation	34.7	18.1	15.2	32.1	-
Operation of other office equipment	52.6	19.7	8.0	19.2	0.6
Data entry	50.1	6.0	8.9	35.1	-
Others	69.5	23.7	-	6.0	0.8

Note: (A) Stands for almost daily utilization throughout the year
(B) For utilization throughout the year but small numbers of days a year
(C) For utilization in specific busy periods of the year
(D) For no specific periods of the year, utilization as it becomes necessary

Source: "Outline of the results of the statistical survey on the business service contractors" Study Groups on Business Services, and National Institute of Employment and Vocational Research, December 1985.

Table 3 to Table 5 give us more detailed information on how the temporary manpower service is utilized.

According to Table 3, most of the temporary clerical staff work from 8:00 or 9:00 a.m. to 5:00 p.m.. And Table 4 shows that most of them work for 6 to 8 or 8 to 9 hours per day and for 5 or 6 days per week. Table 5 shows that many of them do overtime work. In short, it can be said that many of the temporary clerical staff work in the same way as the full time employees of the companies which the temporary staff are dispatched to.

Table 3: Working Hour Zone of Dispatched Clerical Workers

(the number of the workers)

	Total	Start at								Finish at							
		a.m.				p.m.				a.m.				p.m.			
		5:00-7:59	8:00-8:59	9:00-9:59	10:00-12:59	1:00-3:59	4:00-6:59	7:00-10:59	n.a.	11:00-12:59	1:00-2:59	3:00-4:59	5:00-5:59	6:00-6:59	7:00-8:59	9:00-10:59	n.a.
Total	100.0 (1,366)	0.1	12.7	68.7	9.3	5.6	1.8	0.1	1.8	0.3	0.6	6.1	78.5	7.2	3.4	2.0	1.8
1	100.0 (613)	0.2	15.3	74.7	6.5	1.8	0.2	0.2	1.1			5.2	86.8	5.5	1.1	0.2	1.1
2	100.0 (159)		15.7	78.0	5.7	0.6				0.6		4.4	90.6	3.1	0.6	0.6	
3	100.0 (83)		7.2	83.1	7.2	2.4						3.6	91.6	3.6	1.2		
4	100.0 (388)		8.5	72.9	9.5	6.2	0.8		2.1		1.5	5.9	80.4	6.4	2.1	1.3	2.3
5	100.0 (248)	0.4	14.1	69.8	10.9	3.2	1.6			0.4	0.8	10.9	79.4	4.8	3.2	0.4	
6	100.0 (185)		14.1	40.0	10.3	25.4	8.1		2.2	0.5	0.5	5.4	49.7	16.2	15.1	10.3	2.2
7	100.0 (34)		23.5	61.8	14.7							2.9	88.2	8.8			
8	100.0 (52)		13.5	75.0	7.7	3.8						1.9	84.6	9.6	1.9		
9	100.0 (29)		6.9	55.2	17.2	6.9	3.4	10.3			3.4	13.8	62.1	3.4		6.9	10.3
10	100.0 (7)		42.9	57.1						14.3		14.3	71.4				
11	100.0 (17)		5.9	41.2	35.3	5.9			11.8			5.9	29.4	47.1	5.9		11.8
12	100.0 (2)		10.0	55.0	5.0	5.0			50.0			50.0					50.0
13	100.0 (20)		10.0	55.0	5.0	5.0			20.0			20.0	60.0	10.0	10.0		20.0

Note: 1: General clerical work, 2: Accounting, 3: Clerical work for trade, 4: Type writing, word processor operation, 5: Data processing, 6: Communications, 7: Designing, drafting, 8: Secretary service, 9: Interpretation, translation, 10: Health & medical service, chemical analyse service, 11: Sales, advertizing, 12: Service, 13: n.a.

Source: "Report of the study on work and life of female workers dispatched by business service firms" by National Institute of Employment and Vocational Research, April 1986.

Table 4: Effective Working Hours and Working Days of Dispatched Clerical Workers

(the number of the workers)

	Total	Effective working hours per day									Effective working days per week					
		Less than 4 hours			4-6			6-8			8-9			More than 9 hours		n.a.
		4-6	6-8	8-9	4-6	6-8	8-9	4-6	6-8	8-9	4-6	6-8	8-9	Within 3 days	7	
Total	100.0 (1,366)	1.4	7.8	75.3	13.0	0.8	1.7				9.1	2.3	70.1	11.1	0.4	7.0
1	100.0 (613)	0.5	2.6	81.9	13.2	0.5	1.3				5.7	1.5	72.4	12.7	0.7	7.0
2	100.0 (159)	0.6	1.9	86.2	11.3						3.8	0.6	78.0	12.6	0.6	4.4
3	100.0 (83)	2.4	2.4	81.9	10.8	2.4					2.4	1.2	85.5	6.0		4.8
4	100.0 (388)		10.3	79.6	8.2	0.5	1.3				13.9	3.4	70.4	6.2	0.3	5.9
5	100.0 (248)	2.0	7.3	73.4	15.3	1.2	0.8				5.6	1.2	72.2	16.1	0.4	4.4
6	100.0 (185)	1.6	24.9	50.8	18.9	2.7	1.1				12.4	1.1	72.4	8.0		5.4
7	100.0 (34)		2.9	82.4	14.7						2.9	2.9	70.6	20.6		2.9
8	100.0 (52)		5.3	86.5	5.8	1.9					1.9	3.8	84.6	5.8	1.9	1.9
9	100.0 (29)	10.3	6.9	62.1	10.3		10.3				17.2	3.4	51.7	6.9	3.4	17.2
10	100.0 (7)		14.3	71.4	14.3						11.8	29.4	71.4	28.6		35.3
11	100.0 (17)		11.8	11.8	64.7		11.8				10.0		23.5			50.0
12	100.0 (2)		50.0			50.0					10.0		50.0			50.0
13	100.0 (20)		5.0	35.0	35.0		15.0				10.0		65.0	5.0		20.0

Note, Source: Same as Table 3.

Table 5: Overtime Work by Dispatched Clerical Workers
(the number of the workers)

	Total	No overtime	Do overtime work	Frequency of overtime work				n.a.
				Almost everyday	2 or 3 times a week	Very rarely	n.a.	
Total	100.0 (1,366)	28.8	70.4	<12.6>	<27.3>	<59.0>	< 1.0>	0.7
1	100.0 (613)	29.9	69.3	<11.1>	<28.2>	<60.2>	< 0.5>	0.8
2	100.0 (159)	27.7	70.4	< 8.0>	<27.7>	<64.3>		1.9
3	100.0 (83)	12.0	88.0	<27.4>	<38.4>	<34.2>		
4	100.0 (388)	27.1	72.7	<11.0>	<30.9>	<56.7>	< 1.4>	0.3
5	100.0 (248)	27.8	71.8	<13.5>	<24.2>	<61.2>	< 1.1>	0.4
6	100.0 (185)	24.9	74.6	<18.8>	<36.2>	<42.8>	< 2.2>	0.5
7	100.0 (34)	20.6	76.5	<15.4>	<26.9>	<57.7>		2.9
8	100.0 (52)	19.2	80.8	<14.3>	<19.0>	<66.7>		
9	100.0 (29)	17.2	82.8	< 8.3>	<20.8>	<62.5>	< 8.3>	
10	100.0 (7)	28.6	71.4	<40.0>	<60.0>			
11	100.0 (17)	47.1	52.9	<22.2>	<33.3>	<44.4>		
12	100.0 (2)	50.0	50.0				<100.0>	
13	100.0 (20)	45.0	45.0	<11.1>	<33.3>	<55.6>		10.0

Note, Source: Same as Table 3.

Table 6 shows the sex and age of the temporary clerical staff. According to this Table, it can be inferred that many of the temporary clerical staff are female workers. As far as the age of the temporary clerical staff, the largest number of the replied companies answered that the major age group for almost all types is "25 to 34 years old". The second largest number of companies answered that the major age group is "under 25" and "35 to 44".

We have looked at how and to what extent the temporary manpower service is utilized and the sex and age of the temporary staff. Let us now look at the present situation of the companies in the temporary manpower service industry and the registration system that exists in these companies.

Table 6: Sex and Age of Temporary Clerical Workers
(the number of the companies)

Type of work	Total	Sex of workers			Major age of workers					
		Mainly male	Mainly female	Not particular	Under 25	25 to 34	35 to 44	45 to 59	Over 60	Not particular
Total	100 (1,138)	12.0	83.4	4.6	18.0	47.3	11.1	8.6	1.3	12.9
Simple clerical work	100 (163)	23.3	71.2	4.9	25.2	27.6	13.5	16.0	3.7	13.5
Filing, documentation	100 (66)	15.2	81.8	3.0	10.6	33.3	21.2	7.6	4.5	19.7
Secretary	100 (46)	6.5	91.3	2.2	8.7	67.4	10.9	4.3		8.7
Reception	100 (84)	2.4	95.2	2.4	39.3	45.2	7.1	2.4	1.2	4.8
Accounting	100 (87)	6.9	89.7	3.4	4.6	49.4	17.2	11.5		16.1
Trade, import, export, shipping	100 (56)	10.7	83.9	5.4	3.6	73.2	5.4	1.8	3.6	8.9
Sales clerk	100 (86)	14.0	81.4	4.7	16.3	60.5	4.7	8.1	1.2	8.1
General affairs	100 (59)	22.0	74.6	3.4	13.6	42.4	15.3	15.3	1.7	11.9
Patent related clerical work	100 (8)	25.0	75.0		25.0	37.5	25.0	12.5		
Research, calculation	100 (39)	7.7	82.1	10.3	20.5	51.3	10.3	2.6		15.4
Interpretation	100 (48)	18.8	60.4	20.8	6.3	43.8	10.4	10.4		29.2
Translation	100 (46)	23.9	63.0	13.0	6.5	41.3	6.5	21.7		23.9
Stenography	100 (7)		71.4	28.6		28.6	14.3	14.3		42.9
Typewriting	100 (83)	2.4	96.4	1.2	8.4	62.7	12.0	3.6		10.8
Word processor operation	100 (76)	2.1	97.9		31.3	54.2	4.2	2.1		8.3
Operation of other office equipments	100 (36)	5.6	94.4		16.7	55.6	13.9	5.6		8.3
Data entry	100 (97)	2.1	95.9	2.1	29.9	50.5	6.2	2.1		11.3
Others	100 (31)	41.9	51.6	6.5	12.9	9.7	25.8	29.0	3.2	19.4

Source: Same as Table 2.

According to the first part of *Table 7*, while some of the companies in the temporary manpower service industry started their business in 1965 to 1975, the companies in the industry have rapidly increased in number since 1980. As shown in the second part, apparently these companies do not need so much capital, 30% of the companies having capital ranging 1 million yen to 5 million yen. More than 50% of the companies have less than 10 million yen of capital.

The third part of *Table 7* tells us that the turnover in this industry has grown substantially during the past five years.

Let us next talk about the registration system. There are two types of the companies in the temporary manpower service industry. One type has a list of registered workers. In case of demand from a user company, it selects appropriate workers who could meet the user's need and concludes employment contract with them and dispatches them to the user company. The other type employs workers on a full time basis, whom it dispatches to the user company according to the user's need. The former type has the registration system, where those who want to work as the temporary clerical staff are registered.

In the temporary manpower service industry, many companies adopt the registration system. According to *Table 8*, about 60% of the replied companies do have this system. Also *Table 8* shows the ratio of the companies classified according to the proportion of the registered workers who were employed during the past one year to the total number of the registered workers. According to this *Table*, the companies with "20% to 40%" of registered workers who were employed were the largest in number. The second largest number of the companies had "40% to 60%". The percentage of registered worker who were employed is unexpectedly low. This is partly because the same workers are registered in several different companies and also because not all the registered workers have the will and the ability to work, some of them registering themselves only tentatively. In this regard one can say that the registration system does have a sort of screening function.

3. Background of the Development of the Temporary Manpower Service — factors of the demand side —

Why is the temporary manpower service utilized by the user companies? We will examine the reasons and try to clarify the demand side factors which have contributed to the development of the temporary manpower service industry.

The reasons why the temporary manpower service is utilized vary with the term and the time of utilizing the service. Therefore, we will examine the reasons of each type of utilization.

First, the temporary manpower service may be utilized as it becomes necessary. In this case, two possibilities exist. One is that the user company utilizes the temporary clerical staff in order to fill temporary vacancy with. The other is that the user company needs temporarily some unusual, business which is no main for the company.

Table 7: Outline of Temporary Manpower Service Companies
(the number of the companies)

(1) Founded in

Total	Before 1954	1955 to 1964	1965 to 1969	1970 to 1974	1975 to 1979	1980 and after
100.0 (109)	0.9	1.8	11.9	14.7	16.5	54.1

(2) Size of Capital

Total	Less than ¥1M	¥1M to ¥4.99	¥5M to ¥10.99	¥10M to ¥20.99	¥30M to ¥99.99	¥100M or more
100.0 (109)	4.6	30.3	18.3	27.5	12.8	3.7

(3) Turnover from the Temporary Service contract etc. in past 5 years

Total	Substantially increased	Slightly increased	Not changed	Slightly decreased	Substantially decreased
100.0 (109)	41.3	40.4	4.6	1.8	5.5

Source: Same as *Table 2*.

Table 8: Registration System
(the number of the companies)

(1) Existence of Registration System

Total	Yes	No
100.0 (109)	62.4	37.6

(2) Ratio of the temporary clerical workers who were employed during the past one year

Total	Less than 20%	20% and more or less than 40%	40% and more or less than 60%	60% and more or less than 80%	80% or more
100.0 (68)	14.7	41.2	23.5	10.3	8.8

Source: Same as *Table 2*.

The former case can be explained by the following three reasons. First, since the company hires the new school leavers periodically, no vacancy can be filled with full time employees until the next periodical hiring season. Second, though the company can fill the vacancy by transferring the existing full time employees, it cannot afford the time, nor cost for training them additionally. Third, the company hires the full time employees not periodically, but it costs the company to search for prospective employees.

The following points should be noted here. In Japan, the internal labor market exists especially in the large-sized company. And it is usually said that the vacancy is filled through promotion in the large-sized company. But even in such company there exist some kinds of the promotion ladders in fact. Some of them are longer and others are shorter. The company may fill the temporary vacancy with the temporary clerical staff, if the vacant position is located out of the longer promotion ladder or within the shorter promotion ladder or the entry job becomes vacant as a result of promotion.

As mentioned before, it can be inferred that many of the temporary clerical staffs are female. This is closely connected with the fact that the promotion ladder for female clerical employees has been usually restricted so far, compared with that for male employees.

In the first and second cases mentioned above, the company which utilizes the temporary clerical staff need not predict the number of employees who are to retire through the year strictly, and can cope with the fluctuation of the total number of full time employees easily. In some case, the company can avoid over-employment and therefore can save cost.

In the second case, the company does without the shortterm training. In the third case, the company can save the cost of searching for prospective employees.

The more specialized knowledge or the more higher skill is required for the vacant job which the company fills with the temporary staff, the more the company can economize the cost of over-employment, training, and searching.

We can conclude that the temporary clerical service which is temporarily utilized as it becomes necessary does bring about savings of those costs which have been born by each company, that is, costs for over-employment, costs for short-term training, recruitment cost and so on. And the latter type of the temporary manpower service may socially adjust the fluctuation of the volume of employment in each company, too, as mentioned below.

Second, the companies utilize the temporary clerical staffs during specific busy periods. Generally speaking, there are four measures to cope with specific busy periods:

- 1) adjust the number of full time employees to cope with busy periods, in advance
- 2) over time work done by full time employees
- 3) temporarily transfer the employees of other division to the busy division
- 4) employ part time workers.

It is inconceivable that private companies which try to rationalize management take method 1). Method 2) seems common. But it may bring about not only the international problem but also the opposition of workers that the companies continue to take this method. And the rapid increase of the volume of the clerical work accompanied by the technological progress based on information technology on the one side, and the restraint of the number of the clerical staffs on the other side do not enable the companies to deal with specific busy periods only through over time work. Method 3) is often taken in production department, but it is doubtful that this is applicable to the same degree in the clerical department. In case of method 4), not a little cost and time are required in order to acquire certain number of the part time workers with certain ability. Furthermore, as for 3) and 4), the more specialized knowledge or the higher skill is required for specific busy jobs, the more difficult it is for the companies to take.

There are some difficulties with a varying degree in taking four measures in order to deal with specific busy periods. The companies utilize the temporary manpower service in case of specific busy periods, because of these difficulties. This type of the temporary manpower service enables the companies to reduce the total working hours of the employees and virtually does have a function of "sharing the working hours". Also this service save recruitment cost which might otherwise be incurred by taking method 3).

In summary, this type may socially adjust the temporary fluctuation of the volume of the employment in each company.

It can be said that both of the first and second types of utilizing the temporary manpower service have developed because the companies have pursued interests of social division of labor. Especially the low economic growth since the oil crisis has required the companies to restrain labor cost strictly, which in turn have pressed the companies to pursue the merits of social division of labor.

Another type of utilizing the temporary manpower service has developed since the problems that are inherent in the personnel management of Japanese companies, especially of the large-sized companies have come out. This type is to utilize the temporary clerical staffs almost daily and in a long term.

In general, the Japanese wage system is based on seniority and wages increase in proportion to age and length of service. This system can be economically rational only when the level of skill of workers increase proportionally to age and length of service or when the workers whose level of skill turn out far below the wage level can be let out of the companies.

However, in general, there has been no career prospect for female workers which enables them to enhance their ability or qualification. Nevertheless, the problems have not come out, because the latter of the above mentioned two conditions has worked. In other words, many of the female workers have so far worked for the same companies not for a long periods of time. Some of them go out of the labor market when they resign the companies. Therefore the companies have taken advantage of their voluntary departure.

The situation is changing. First, the attitude of female workers is changing and those who wish to work for the same companies for a long periods of time are increasing in number. Therefore, it is becoming not so easy as before for the companies to take advantage of their voluntary departure. Second, the Equal Employment Opportunity Law was enacted and it is becoming difficult for the companies to have de facto different personnel management for female workers. Third, the strong requirement of restraining labor cost under the low economic growth have made the companies consider the discrepancy between wage level and skill level as a major issue.

One way to deal with these changes is to form a career also for female workers which enables them to enhance their ability. In fact, in the wholesale and retail industry the companies which prepare such career system are increasing in number. But this method is still risky for the companies, because still many female workers want to work for the same companies not for a long periods of time. If the companies train the female workers at the same expense as the male workers, the companies might run a risk of wasting the investment in human capital.

The other way is to change the wage system of full time employees in itself and to introduce other wage system based on classification. But it does not seem that this method can be realized before long, because both the labor and the management show strong resistance to this type of personnel management.

In summary, neither of two methods are not useful. As a result of this, the companies utilize the temporary manpower service on a long term basis.

The problems inherent in the personnel management of Japanese companies, especially of the large-sized companies, have come out under the changing situation, which in turn have prompted the companies to let out the clerical work which cannot be integrated into a career system. As a result the companies ask for the temporary manpower service on a long term basis.

Having said that, the above mentioned change in the situation is not a drastic one. Therefore the utilization of the temporary manpower service on a long term and daily basis has just started.

4. Background of the Development of the Temporary Manpower Service — factors of the labor supply side —

Let us now examine the labor supply side factors which have contributed to the development of the temporary manpower service. The discussion will be based on the questionnaire survey for the female temporary clerical staffs.

Table 9 tells us that most of the female workers surveyed are in their twenties and thirties and those around thirty years old are the largest in number. Their educational background is relatively high. Nearly 60% of them are single.

Table 10 shows their work experience. According to this, most of them have previous work experience. Many have fairly long periods of work experience. More than 70% registered as the temporary manpower staffs within one year after leaving their previous work.

Table 9: Character of the Female Temporary Clerical Workers
(the number of the workers)

(1) Age				
Total	19 years or less	Between 20 and 24 years	Between 25 and 29 years	Between 30 and 34 years
100 (1,824)	0.2	13.7	36.9	25.0
	Between 35 and 40 years	40 years or more	N.A.	
	11.7	11.6	0.9	

(2) Educational Background				
Total	Lower secondary school	Upper secondary school	Jr. coll. & tech. coll.	University
100 (1,824)	0.8	31.1	27.2	20.6
	Specialized school	Others	N.A.	
	18.9	1.3	0.1	

(3) Marital Status				
Total	Single	Married	Divorced or separated by death	N.A.
100 (1,824)	58.1	38.1	3.7	0.2

Source: Same as Table 3.

Table 10: Work Experience of the Female Temporary Clerical Workers
(the number of the workers)

(1) Previous Work Experience

Total	Yes	No (Not student)	Student	Unknown
100 (1,824)	95.9	1.6	1.5	0.9

(2) Number of Years of Work Experience

Total	Less than 1 year	1 year or more & less than 2 years	2 years or more & less than 3 years	3 years or more & less than 5 years
100 (1,824)	4.3	10.0	18.0	32.1
	5 years or more & less than 10 years	10 years or more	Unknown	
	27.2	7.8	0.6	

(3) Period of time during which the worker was away from work

Total	Less than 1 month	1 month or more & less than 6 months	6 months or more & less than 1 year	1 year or more & less than 3 years
100 (1,824)	16.5	33.5	23.1	16.1
	3 years or more & than 5 years	5 years or more	Unknown	
	2.9	6.3	1.5	

Source: Same as Table 3.

These results tells us that they are completely different from the part time workers in the wholesale and retail industry who are also often referred to as an example of the diversified forms of work, in terms of the source of labor supply. As for the latter, many of them are elder than the former and are married. Furthermore, some of them enter the labor market for the first time and others after the long periods of rest.

Next we will examine the reasons why they chose to work in the temporary manpower service industry. *Table 11* shows the working style which they desired. According to *Table 11 (6)*, more than 40% of them, the largest in number, wish to work regularly throughout the year, for 20 days or more per month and for 6 hours or more per day. About 25% of them wish to work regularly throughout the year, for less than 20 days per month or for less than 6 hours per day. Those who wish to work only during specific periods of the year and have a long periods of rest constitute about 20%.

More than 40% of the female workers surveyed, who wished to work like regularly employed full time workers, chose to work in the temporary manpower service industry, not because they desired the different working style from that of the full time workers. Some of them may have become temporary clerical staffs because they wanted to be engaged only in the jobs that could enable them to make use of their skill and qualification. Also those who desired to be the regularly employed full time workers may have become temporary clerical staffs, in order to gain the same level of remuneration as the corresponding full time workers. It is because it is difficult or disadvantageous for those who are not new school leavers to be employed by the medium- and large-sized companies.

This type of workers are expected to constitute many of those workers who answered "able to utilize the acquired skill, qualification", "unable to be employed as a full time employee", "not bothered by human relations", "good remuneration" (*Table 11 (1)*).

About 25% of the workers surveyed, who wished to work like part time workers may have become temporary clerical staffs, compared with part time workers in the wholesale and retail industry. They may have thought that they could make more use of their skill and qualification and could gain better remuneration than the latter. This type of workers answered, it is expected, "able to work according to my schedule", "able to utilize the acquired skill and qualification", "good remuneration" (*Table 11 (1)*).

About 20% of the workers surveyed, who wished to work only during specific periods of the year, may have considered the working style of the temporary service, that is, "You can work whenever you want", as suitable for themselves. Many of them seem to answer "able to work according to my schedule".

Table 11: The Reason of Choosing to Work in the Temporary Manpower Service Industry and the Desired Working Style
(the number of the workers)

(1) Reason

Total	A	B	C	D	E	F	Other	N.A.
100.0 (1,824)	18.6	9.8	41.2	8.8	3.8	14.5	2.9	0.5

Note: A = Able to utilize the acquired skill and qualification
 B = Good remuneration
 C = Able to work according to my schedule
 D = Not bothered by human relations
 E = Recommended by someone
 F = Unable to be employed as a full-time employee

(2) Desired number of annual working days

Total	Regularly throughout the year	Work at specific periods and have a long rest	Other	N.A.
100.0 (1,824)	70.4	20.3	5.7	3.6

(3) Desired working hours a day

Total	Less than 4 hours	4 - 6	6 - 8	More than 8 hours	N.A.
100.0 (1,824)	1.8	17.0	76.6	2.7	2.0

(4) Desired working days a week

Total	Within 3 days	4 days	5 days	6 days	N.A.
100.0 (1,824)	13.2	13.2	65.6	3.2	4.9

(5) Desired working days a month

Total	Less than 9 days	10 - 14 days	15 - 19 days	20 - 25 days	More than 26 days	N.A.
100.0 (1,824)	4.6	9.6	19.6	58.9	1.1	6.1

(6) Desired working style

Total	Regular & full time	Regular & part time	Specific periods	Other	N.A.
100.0 (1,824)	42.4	24.8	20.3	5.7	6.8

Note: Classification is based on the combination of (2), (3) and (5) above;
 * Regular & full time; "regularly throughout the year" and "more than 6 hours a day" and "more than 20 days a month"
 * Regular & part time; "regularly throughout the year" and "less than 6 hours a day" or "less than 19 days a month"
 * Specific periods; "work at specific periods and have a long rest".
 * Other

Source: Same as Table 3.

Table 12 shows the remuneration of the temporary clerical staffs. Now, we will look at the average hourly wages. While about 20% of the workers surveyed gain "less than 1000 yen", about 30% gain "1000 yen or more and less than 1200 yen" and about 20% gain "1200 yen or more and less than 1500 yen", and 15% gain "1500 yen or more". Hourly wages of the temporary clerical staffs are greater than that of part time workers (572 yen) and that of female full time workers (average contractual hourly wage is 776 yen, and average hourly wage including special earnings is 965 yen). (Source: both of these figures are calculated from the Basic Survey of Wage Structure 1984 by Ministry of Labor.)

Table 12: Average Hourly Wages of the Temporary Clerical Workers
(the number of the workers)

Total	Less than ¥1,000	¥1,000 or more & less than ¥1,200	¥1,200 or more & less than ¥1,500	¥1,500 or more & less than ¥2,000
100 (1,824)	19.8	30.0	20.1	7.4
	¥2,000 or more & less than ¥2,500	¥2,500 or more	Unknown	
	3.2	4.9	14.6	

Source: Same as Table 3.

Remuneration of the temporary clerical staffs is on average higher than that of part time workers and full time workers.

As mentioned above, there are some types of the female workers who wish to work in the temporary manpower service industry.

- 1) those who want to make use of their skill and qualification,
- 2) those who choose to become temporary clerical staffs because it is difficult or disadvantageous to be employed by the medium- and large-sized companies as full time workers,
- 3) those who prefer the same working style as part time workers in the wholesale and retail industry but do not want to be those part time workers,
- 4) those who want to work flexibly and so on.

The temporary manpower service industry has enlarged the scope of choice for female workers who have various attitude toward work. Moreover, the industry has offered them chance to gain greater remuneration. These are the factors of the labor supply side which have contributed the development of the temporary manpower service.

5. Personnel Management in the Temporary Manpower Service — case study of A company —

We will discuss on the personnel management in the temporary manpower service industry, based on the results of the interview conducted by author.

A Company was established in 1973. Its turnover in 1985 was about 6.6 billion yen and the number of registered staffs was about 15,000. A company now dispatches its staffs to about 8,000 companies.

(1) Registration and ranking of workers

Every year 5,000 to 6,000 workers apply for registration. Working experience of at least two years is required for a worker to apply for registration. Applicants for registration are interviewed for verification of working experience and willingness to work. Furthermore, the company tests them to study the level of their skill and knowledge. According to the results of these examinations, all of the applicants are registered and ranked in their own occupations. Ranking is based on skill, knowledge and experience each of them has. They are in general ranked either of three ranks: A, B, or C.

If the registered staffs want to change their occupation or to be upgraded, they are requested to take examinations. They can take the examination for upgrading at any time. Actual number of those who apply to be tested are less than 10%.

There are a few who re-enter the labor market after a long periods of rest, for example because of bringing up their children. It is said that it is difficult for them to work, even if they want. The reason is that they are not ready for work while registered staffs are strongly asked to be.

Applicants for registration are not screened. All the applicants are registered as the temporary clerical staffs. Of course, to be registered does not always mean to be dispatched at once. Unless there is request which meets the level of skill or knowledge the registered worker has, the worker will remain registered and will not be employed to be dispatched. But such case does not happen so often.

(2) Dispatching of workers

Once a client requests a worker to be dispatched, the company selects the appropriate person from the list of registered workers, after obtaining the detailed information as to the occupation, the level of skill and the term of utilizing the dispatched worker and so on from the client. Then the company contacts the appropriate person and asks her/him whether she/he agrees to being dispatched to the client or not. If the worker agrees, the company concludes employment contract with her/him.

In selecting a worker and dispatching her/him, the company must select an appropriate worker as quickly and as carefully as possible. Otherwise the company could not meet the client's needs quickly and would suffer the complaints made by both of the client and the staff, or by either of them. In order to select the most appropriate worker for the client, the company must grasp accurately not only its needs as to the

level of skill and so on, but also its preference. As far as the latter is concerned, the company often must know, for example, whether the client prefer young female workers or the able workers regardless of age. On the other hand, the company must understand the character and the desire of the registered workers. For example, it is necessary to know who are suitable for a Japanese client, who are adequate for a foreign affiliated company, who want to work in the center of the city, who want to work in the suburbs, etc.

However, it is always difficult to know the client's needs exactly. That is mainly due to communication gap. In a large-sized company, a request for dispatched workers comes not directly from the section concerned, but through a personnel department. There can occur certain misunderstanding between the section concerned and the personnel department as to the necessary level of skill and so on. There is possibility of another misunderstanding between the personnel department of the client company and A company and further possibility of misunderstanding between A company and registered staffs.

This misunderstanding will result in complaints from both of the client and the registered staffs, or from either of them. It is said that this kind of trouble happens very often. In case of trouble, the company replaces the dispatched worker to another one or persuades the dispatched worker to continue working in the same client company.

(3) Education and training

A company has its own institution for education and training. The courses are: English conversation, English typewriting, word processor operation (English and Japanese), basic computer operation etc. Some courses are divided into three levels: beginners level, middle level and upper level. The registered staffs who work for A company as dispatched workers for 1,500 hours are entitled to take any of these courses free of charge. In that case, they can take only one course and they must take it within three months after being entitled. It is said that many of those who are entitled attend the courses.

Those who are not entitled can take the courses, too, by paying charge. Now about 30% of the students are those who are not registered. When the registered workers want to take the courses by paying charge, they are admission free and benefit from reduction in tuition.

A company established the formal institution for education and training two years ago. Before that it had had unorganized training courses, for example, in typewriting, in order to improve the registered workers' skill level. The main objective of training remains to improve their skill level. Therefore, though the institution has been in a deficit, the company has run it in behalf of the registered staffs.

(4) Terms of employment

As mentioned before, each registered worker is ranked in each rank of each occupation. The wage system is based on time rate fixed for each

rank of each occupation. Neither length of service nor age are not taken into account.

Time rate is revised once a year, around in July. At that time, the differential of time rate is also adjusted. The revision of time rate is made by the President of A company, who takes the general wage increase into consideration and decides the level of increase of time rate for each occupation in A company.

There is neither bonus system nor retirement allowance.

The registered staffs who work for 1,500 hours as dispatched workers for A company are given paid holidays of five days and also entitled to take the training courses free of charge.

A company is affiliated to the occupational accident insurance scheme and is now studying the affiliation to the unemployment insurance scheme.

6. Structural Change of the Labor Market

Let us look at how the industry which has developed, supported by both demand and labor supply side factors mentioned above, influence the labor market structure.

First, we will look at the labor market in the temporary manpower service industry.

Each registered staff is ranked in each ranking in each occupation and time rate is fixed according to the occupation and the ranking, not to the length of service and age. The registered staffs are employed and dispatched according to the clients' needs. All these things enable us to say that the labor market in the temporary manpower service is an occupation-based labor market where a certain specialized labor is traded.

The temporary manpower service companies like A company are the de facto organizers of such an occupation-based labor market. This can be easily understood when considering the following.

First, though all applicants are registered by A company, virtually A company does not conclude employment contract with those who are inferior in terms of skill, work experience, knowledge and willingness etc. In the result, A company does a de facto screening of workers through the registration system. In other words, through the registration system, A company maintain the quality of temporary clerical staffs at a certain level.

Second, A company ensure qualification of each of the registered staff, through ranking.

Third, though time rate of each occupation is decided by the President in the case of A company, it can be said that the decision reflects the demand of the registered staffs, more or less. Otherwise, the registered workers would change the company and would be registered by another temporary manpower service companies. It follows that the temporary manpower service companies do ask for the wage increase in place for the registered workers.

However, it is difficult to estimate to what extent the companies reflects the demand of workers, and also difficult to predict the future trend.

Fourth, A company has its own institute for education and training, and offers the registered workers various convenience to take courses. In other words, the company positively trains the registered workers in order to improve their skill and knowledge.

Fifth, the case of A company shows us clearly how it manages to meet both needs of demand side (it means user company side) and of labor supply side.

All these things enable us to consider the temporary manpower service companies as the de facto organizers of the labor market.

The competition in this industry is expected to be severe in the near future. Under such situation, the companies will be obliged to enrich the training courses in order to enhance the quality of the service. If, as is the case of A company, the cost of education and training is paid by the company, it will have to take the measures to retain the registered workers, for not wasting the educational investment.

Next, we will look at the impacts of this industry on the enterprise-based internal labor market especially in the large-sized companies.

When the temporary clerical service is temporarily utilized as it becomes necessary or when it is utilized during specific busy periods, it can be said that there is almost no impacts on the internal labor market.

However, when its service is utilized on a long term basis, there is expected to be some impacts. It is because the temporary manpower service is utilized in the clerical work which cannot be integrated into a career system based on seniority. Consequently, there is a possibility that the labor market within the enterprise, especially large-sized enterprise, is divided into two parts.

One is the enterprise-based internal labor market for regularly employed full time workers. The other is the labor market for the temporary manpower staffs utilized on a long term basis.

Having said that, the following points should be considered.

First, the impact of the temporary manpower service on the internal labor market has not been clearly known yet, because its utilization has just become available.

Second, furthermore, we do not know how far the service will be utilized in the future. Therefore, even if the labor market within the large-sized enterprise is divided into two parts, we are not quite sure that the division will be between regularly employed full time workers and the temporary clerical staffs.

Because the cost of utilizing the service is expensive due to the additional management fees, at least the following two cases are expected as regards the division of the labor market.

First, the user companies may directly employ the workers who are dispatched to the companies concerned for a long time, with the higher remuneration on different form of employment contract from that of regularly employed full time workers. For example, the companies may employ them as part time workers, who have the employment contract with fixed periods of time while the regularly employed full time workers have the employment contract without it.

Second, the user companies may make their related companies employ those workers with the higher remuneration, and may subcontract the work to their related companies.

TECHNOLOGICAL DEVELOPMENT AND MEDICINE-RELATED
OCCUPATIONS

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1. Introduction

The purpose of this report is to discuss how the occupations relating to medical care adapt to technological development and a variety of social changes, with particular emphasis on education and training in each occupation.

The sources for this report are (1) the reports written by the government, researchers and workers in each occupation, and (2) my interviews with specialists. Some complementary interview surveys in hospitals were also conducted. We interviewed staff in the Ministry of Welfare, researchers in National Institute of Hospital Administration, staff in the Japanese Nursing Association, and others. However, this report contains the opinions of the author and not those of the Japanese government or any institute.

2. Outline of the Medical Care System in Japan

In Japan, private clinics and hospitals are the centre of medical care. One characteristic in Japan is the high ratio of private operations not only in clinics but also in hospitals (See *Table 1*). All Japanese people are covered by one of the several public health insurance schemes. Each insurance scheme is aimed at a different group of people and has different insurance tax details. This means that most of medical expenses are paid by the insurance systems, and the income of medical institutions is influenced by the reimbursement regulations. Medical care expenses are rapidly rising, as shown in *Table 2*, but please keep in mind that Japanese statistics only show expenses spent directly on the treatment of diseases and injuries and does not include expenses for prevention or indirect costs. In 1961, all nationals were covered by public health insurance schemes, and expenses showed a remarkable growth of 25% over the previous year. When all expenses for old people came to be reimbursed by health insurance systems in 1973, the expenses rose further.

The ratio of medical expenses to GNP is now about 5%, which is not as high as the U.S.A. or European countries. The problem is the much faster increase in the ratio in Japan. The following points can be considered as reasons for the growth of medical expenses. On the demand side, we can point to the advance of the age structure of the population, the increase of diseases like cancer which require high medical expenses, and the increase in the rate

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