Study on Securing of Workers in the Long-term Care Sector Summary

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1. Research Period

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2. Objectives of Research

This research project was conducted in fiscal year 2008 at the request of the Long-Term Care Workers' Affairs Office of Employment Policy Division, Employment Security Bureau, Ministry of Health, Labour and Welfare.

Since the long-term care sector is facing the issues of a serious worker shortage and low worker retention rate, it is important to make efforts to improve working conditions, etc. for care workers as quickly as possible and secure high-quality workers who can meet the demand on a stable basis for the future. This study aims to comprehensively analyze problems unique to the long-term care sector and examine from various perspectives what measures should be taken and what conditions are necessary for care workers to work on a steady basis, thereby contributing to measures to ensure sufficient numbers of care workers and improve employment management. Our analysis is focused on the long-term care business establishments that operate long-term care facility service because the employee separation rate is higher and the employee satisfaction level is lower for these establishments, as compared with those that provide visiting-services. We analyzed statistical data and conducted interview surveys with establishments based on the results of the statistical analysis. This report summarizes the results of the statistical analysis. The results of the interview survey with establishments are planned to be summarized in a separate report.

3. Structure and Outline of this Report

In this research, we looked extensively into employment management improvement measures (including measures to improve working conditions, such as wages, etc., and personnel management) that are effective in attracting and retaining care workers for a long period of time. In addition, we examined the situation of business operation (income) and employment management improvement measures as well as their relationship with the employee separation rate. Following the introductory chapter, which presents an overview of the current situation of long-term care work, we analyzed measures to improve employment management in Chapter 1 through to Chapter 4.

In Chapter 1, we identified characteristics of long-term care work based on the awareness that, in order to secure and retain long-term care workers, they need to be treated in an appropriate manner according to their work characteristics and considered effective measures taking into account such characteristics. In other words, this chapter clarifies overall issues in employment management measures for securing and retaining long-term care workers. Chapter 2 focuses on the quality of workers that affect the retention of long-term care personnel and the quality of services provided to care recipients. We considered how care personnel should be utilized, what management method should be taken, and how the managerial employees should be in order to improve quality of care personnel. In Chapter 3, after grasping the current state of long-term care staff working at establishments providing in-facility long-term care service in terms of their job-related stress and contributing factors, we considered how employment management and the managerial employees should be set up, in order to create a comfortable working environment that can reduce worker stress. Chapter 4 provides a positive analysis of how the employment management improvement measures affect the job satisfaction of long-term care workers and their intention to stay on the job and how such measures affect the business performance, based on which we considered the employment management improvement measures that are effective in realizing the retention of long-term care workers.

It is often pointed out that low wages (compared to other jobs) are a factor causing shortages of long-term care workers. In Chapter 5, we analyzed the effect of wage disparity between long-term care workers and other workers on the separation rate while paying attention to whether it differs by region. Additionally, in the reference material contained in Chapter 5, we studied the relationship between the condition of the long-term care business (income) and the employee separation rate of long-term care workers.

The following consists of the summaries of Chapter 1 and subsequent chapters.

Chapter 1: For Securing and Retaining Long-term Care Workers

-Problems and the direction of improvement suggested by the survey on the working

condition in long-term care for FY 2007—

In this chapter, based on an awareness that in order to secure and retain care workers, they need to be treated in an appropriate manner according to their work characteristics, we conducted an analysis using the personal survey sheets (worker data) and the business establishment survey sheets (establishment data) obtained in the "Survey on the Working Condition in Long-Term Care For FY 2007" conducted by the Care Work Foundation.

Through the analysis of the worker data, we comprehended the diversity of the motives for becoming long-term care staff and their attitude towards their career, analyzed the worries, dissatisfaction, and anxiety they have, and examined the worries unique to their workplace and type of work, as well as troubles and dissatisfaction related to sociological and cultural gender gap. We also studied the relationship between the factors of dissatisfaction and anxiety of workers as well as their intentions to stay on the job.

The analysis of the establishment data shows that, what the establishments consider problems in business operation corresponds with what workers feel dissatisfied and anxious about. It was found that, despite the fact that they share common problems; the measures taken by the establishments to secure and retain workers are not always effective in preventing long-term care staff from leaving the job early and improving the worker retention rate or in recruiting workers effectively.

Based on the results of the data analysis, we made six suggestions for securing and retaining long-term care staff as described below.

(1) Provide career options and treatment suitable for the characteristics of each care worker

Those who chose to work as long-term care workers because of their interest in care services are highly motivated to growth through work and have a long-term vision for their career. On the other hand, those who became long-term care workers because they think this is a job with greater potential as compared to other kinds of jobs or because of their need to keep a good balance between job and their responsibility in their families tend to have relatively limited motivation for career development or consider their job only as a means to earn money. The data also shows that male long-term care staff and female long-term care staff who earn their living tend to have more worries and feel more dissatisfied during the course of performing their duties. These results suggest that long-term care business establishments should pursue an ideal way of treating workers irrespective of gender on the one hand, while taking into

consideration the diversity of workers on the other hand.

(2) Define the role of long-term care staff particularly for in-home long-term care services

In-home long-term care services are required to provide long-term care services to care recipients in their own respective living environments. It was found that in-home long-term care staff has worries and anxiety derived from the lack of a unified view of their role between the care recipients or their families and long-term care staff. It is urgently necessary to establish the role of caregivers that is acceptable to the care recipients and make it widely known. In doing so, the community-type approach described in (6) below, which is to share information in the workplace, is considered to be effective.

(3) Thoroughly consider the management policy and ways of business administration especially for in-facility long-term care services

The community-type approach described in (6) is effective also in this case.

(4) Facilitate acquisition of professional expertise and skills by long-term care staff who provide services for care recipients in strong need of care

Many long-term care staff working at establishments providing care in a small grope home setting for the elderly with dementia or welfare facilities for the elderly requiring long-term care has worries and anxiety related to their knowledge and skills. However, as labor intensity has been increasing in this area, it is difficult for them to take time for learning. It is necessary to establish a system to secure enough time for education for those long-term care staff that take care of those in strong need of care.

(5) Pay attention to and facilitate communication with newly employed long-term care staff

Those long-term care staff who have a strong intention to leave their job soon tend to feel isolated or feel uncertainty about their roles. The facility owner and senior long-term care staff need to mitigate their feeling of isolation by actively communicating with them and make them clearly understand their roles as professional long-term care staff. The time for doing so should be secured in the workplace.

(6) Take a community-type approach, not only to lessen the dissatisfaction of long-term

care staff, but also to increase their motivation and satisfaction

Many establishments are currently making efforts to retain long-term care staff by responding to the requests of each individual long-term care staff and improving the system. However, these efforts are not necessarily effective in retaining and securing long-term care staff. The results of the data analysis show that, as a common characteristic of the establishments that have been successful in securing and retaining long-term care staff, they practice a community-type approach in which each long-term care staff is treated as a member of a community organization. Such approach includes activating communication within the organization, sharing information within it, paying attention to health management and skill development of long-term care staff, and creating a comfortable workplace environment, etc.

Theoretically, the community-type approach not only lessens long-term care staff dissatisfaction with their work, but also increases their motivation and satisfaction by giving them more responsibility for the results of their work. The suggestions from (1) to (5) above, which are drawn from what is demonstrated by the results of this data analysis, can also be implemented by actively promoting a community-type approach.

However, implementing these measures at the work site would require monetary resource. Even more important is the attitude of the owner and the management towards each individual employee. Considering and treating each long-term care staff not as a tool for business operation but as a member of the community, and bringing in employees with various backgrounds and treating each of them according to their growth would help dispel long-term care staff feelings of alienation and uncertainty about their roles, thus making them motivated to acquire specialist knowledge and skills. When these things are realized, not only the employee retention rate but also productivity would increase, and such a workplace would be attractive for newcomer long-term care staff. As a result, the workplace would become the first choice for both workers and care receivers and would thus obtain more funds for securing and developing personnel. In this sense, the community-type approach is really suitable for the characteristics of long-term care work.

Chapter 2: Ideal Management for Improving the Quality of Long-Term Care Personnel —Analysis of FY 2007 survey on the employment management in long-term care facility—

Focusing on the quality of the personnel that affect the retention of long-term care personnel and the quality of services provided to long-term care recipients, we considered how care personnel should be utilized, what management method should be taken, and how managerial employees should act in order to improve the quality of the personnel, particularly for establishments providing in-facility long-term care service. We used data from the "Survey on Employment Management in Long-Term Care Facilities for FY 2007" (establishment survey sheets and worker survey sheets) conducted by the Care Work Foundation.

First, we considered effective ways to utilize the personnel which improve the quality of such personnel. In the long-term care service site, the ratio of non-regular employees has been increasing. Increase in non-regular employees is often believed to have a negative impact on the quality of personnel. However, as long as the analysis of this chapter is concerned, such tendency has not been observed. It was shown that the quality of the care personnel could be improved even for non-regular workers depending on the way of management which develop personnel, as considered in the latter half of this chapter.

However, the present situation indicates that the use of dispatched workers causes deterioration of the quality of the care personnel. Now that the use of dispatched workers is increasing, mainly in urban areas, it is important to consider effective ways of utilizing the personnel of long-term care business establishments consisting of various workers, including outside personnel.

No significant relationship was found between the use of foreign workers and its impact on the quality of the care personnel. However, this result may be due to the small number of establishments that had an experience in employing employed foreign workers. The effects need to be further examined in the future.

On the other hand, the use of volunteer workers has a positive effect on the quality of the care personnel. At the establishments that actively use volunteer workers, the quality of the personnel tends to be high. This finding suggests that new knowledge can be created at the care service site by adopting the viewpoint of volunteer workers and cooperating with them, who understand the regional characteristics and express opinions from a standpoint close to that of care receivers. Making the care service site open to the local community in this way is thought to be effective in improving the quality of the personnel and, moreover, in improving the quality of long-term care services.

Secondly, we considered management methods that can improve the quality of care personnel. It was found that two methods of management are closely related to the improvement of care personnel quality: "structure building," which is to share information necessary for the organization in providing long-term care services and establish necessary structure for that purpose; and "personal consideration" in which

the superiors and senior caregivers actively look after each long-term care staff and help them in developing their abilities. It was also found that, in order for the managerial employees to practice these ways of management at the work site, the establishment needs to clearly define the roles expected of the managerial employees, establish strict criteria for the appointment of the managerial employees, and actively provide them with training so that they can fulfill such roles. In other words, in practicing personnel management that can improve the quality of the personnel, it is important to foster and recruit the managerial employees capable of practicing such management. Additionally, it was found that the management with structure-building and personal consideration tends to be actively pursued at those establishments that employ the managerial employees not necessarily from inside, but from the staff of the larger entity, or from the persons who have experience as managerial employees in sectors other than long-term care services.

Lastly, we studied why the practice of personnel management with structure-building and personal consideration improves the quality of personnel. It was found that the long-term care staff working for the establishments where such management methods are adopted tend to realize that they are growing through work and perceive their job as a rewarding professional job. Although the degree of such feeling or perception varies by each employment style, the above-described way of personnel management proved to help facilitate the growth of workers and increase their motivation, even for non-regular employees and dispatched workers.

It is not too much to say that the quality of care services provided at establishments providing in-facility long-term care service for the elderly who have complicated needs for care relies on the growth of each caregiver, both as an individual and as a team member. In Japan, where the population is aging at an unprecedented pace and where the need for long-term care work is increasing both in quality and quantity, there will be growing needs to select and appoint managerial employees who can promote structure-building and personal consideration as the management methods that support the growth of long-term care staff, both at the individual and organizational level, along with growing needs to actively develop such prospective managerial employees.

Chapter 3: Employment Management and Reducing the Stress of Long-Term Care Staff at Establishments providing In-Facility Long-Term Care Service

In this chapter, after grasping the current state of long-term care staff working at long-term care facilities in terms of their job-related stress and contributing factors, we considered effective ways of employment management for the reduction of their stress and the creation of a working environment where they feel comfortable. On that basis, we examined the positioning of managerial personnel at the work site who supports employment management improvement. We used the data of the worker survey sheets of the "Survey on Employment Status and Awareness of Long-Term Care Workers," conducted by the Care Work Foundation.

The analysis of factors of the stress that long-term care staff feel in their workplace shows that, in addition to the low wages, lack of sufficient time to take care of the long-term care recipients attentively enough due to the increasing shortage of workers, as well as uncertainty about the appropriateness and safety of their care, are the causes of their stress. The degree of stress is relatively high for that related to the "relationship with the care recipients" and the "quantity and quality of their work."

When asked about the employment management efforts that are supposedly helpful in reducing stress, 80 percent of long-term care staff answered that all the listed efforts are "helpful." Additionally, expectation is high for enhancing mental care efforts. However, not many sufficient efforts have been actually made for employment management as perceived by long-term care staff. We classified the present efforts of employment management into three categories by factor analysis: "organizational improvement and compliance," "treatments that encourage human resource development," and "personal consultation and guidance." Despite the fact that the treatment that encourage human resource development, in particular, are considered "very helpful," along with risk management, health and safety management, and education and training opportunities, sufficient efforts have not been actually made to provide such treatment. Nearly 30 percent of long-term care staff answered that neither mental care nor such employment management efforts have been provided, indicating that establishment of a system whereby they can receive consultation on their stress and worries related to their job or workplace at any time is an issue that needs to be tackled.

In terms of the relationship between employment management efforts and the degree of stress and comfortableness in working, the degree of stress is generally low among the long-term care staff working at the establishments where sufficient efforts are made for employment management and the mental care for employees, and a high percentage of such long-term care staff feel comfortable working at such establishments.

A multiple regression analysis of contributing factors determining the degree of stress and comfortableness in working shows that active efforts in various aspects of employment management, including mental care, can help reduce long-term care staff stress and improve comfortableness in working. Our study of effective employment management suggests that the first step of stress reduction is, while clearly setting the policy direction of long-term care services, establishing a system to deal with accidents and troubles, creating a structure for providing care services by the whole organization through training for moral improvement, etc., and providing a basic environment for long-term care staff to work without anxiety. For the improvement of comfortableness in working, in addition to completely realizing organizational improvement together with compliance as described above, it is effective to provide personal guidance and consultation, as well as follow-ups, to make it easy for long-term care staff to consult with their superiors or senior long-term care staff about their work and to receive guidance from their superiors and senior long-term care staff during the course of providing care services.

As for variable factors other than employment management, attributes of the establishment such as the size, business type, and area classification for determining long-term care fees do not have significant effect on the degree of stress. Additionally, long-term care level and the severity of dementia of the residents do not affect the degree of stress and the comfortableness in working. On the other hand, many night shifts and involvement in terminal care are the factors increasing the degree of stress. It would be important also from the perspective of reducing the stress of long-term care staff to improve the system including the nighttime emergency response system, share information and provide more training opportunities for mitigating anxiety, and accumulate know-how on terminal care.

With regard to comfortableness in working, holding only a class 2 home helper license has a negative impact. It is indicated that, with the advancement in the need for long-term care, there is a growing need for skill development in the course of practical work and the acquisition of systematic knowledge and skills through the obtainment of higher-grade licenses. Additionally, the many night shifts and long actual working hours are also the factors decreasing comfortableness in working. There is room for further study of how to distribute and utilize limited personnel effectively and efficiently. It should also be mentioned that annual income does not affect comfortableness in working.

Furthermore, being a chief or (sub-) leader is a factor increasing the degree of stress and decreasing comfortableness in working, indicating that the layers of core workers at the work site are intensively burdened with responsibilities. There are urgent needs for overall appropriate personnel of the entity, enhanced support for and developing of these workers, and review of the division of roles and the way of working.

It has been pointed out in earlier studies that the managerial employees at the work site play an important role in retaining employees and developing their capacity. In addition to the establishment of an organizational structure, it was revealed that personal consultation and guidance by superiors and senior staff are important in increasing the care long-term care staff comfortableness in working. We conducted an analysis of those layers of managerial personnel who seem to feel comfortable in working and actively work without much stress at the present work site. Looking at personal attributes, many of them have experienced working at private companies in other sectors than welfare, medical service, and long-term care. It should be discussed what shape the workplace should take, in order to make use of the know-how held by such people who are entering into the long-term care sector from other industries, from various perspectives such as proper information provision at the time of recruitment and intensive follow-up support after employment.

In terms of the way of working, those layers of managerial employees who feel comfortable in working do not necessarily work longer than others, though the average annual income is about 180,000 yen higher. There are differences in annual income even under the same pay system. The whole industry should take the revision of the wage as an opportunity to discuss ideal ways of wage management, including the management of total wages from a long-term perspective and definitizing of criteria for determining the wage amount of each employee by wage element, and should pursue the model of business strategies for developing the potential of both employees and the residents or care recipients.

When attention is paid to efforts to develop managerial employees, the level of comfortableness in working is high among those who are working at the establishments that provide them with abundant opportunities to receive training inside and outside the facility and reflect employee performance in their position and treatment, whereas the managerial employees of the establishments that make no such effort tend to feel uncomfortable in working. Even if it is impossible to carry out all these activities within the establishment, developing and supporting managerial employees in cooperation with municipalities, industry organizations or other establishments would provide a clue to the improvement of employment management at all care service sites. In addition to establishing a personnel developing system, it would also be important to create a system of personal consultation and guidance for managerial employees in practical scenes, including making them fully aware of the superior's role of guiding subordinates and the appointment of a supervisor.

Chapter 4: Analysis of the effects of employment management improvement measures at long-term care establishments

In this chapter, in order to address the question as to what employment management improvement measures can facilitate the retention of long-term care workers, we analyzed how the employment management improvement measures affect the job satisfaction of long-term care workers and their intention continue to work and how such measures affect the business performance (profit rate [per unit of labor input]) using the worker survey sheets and establishment survey sheets of the "Survey on the Working Conditions in Long-Term Care For FY 2007" conducted by the Care Work Foundation. The results of the analysis of the worker survey sheets concerning employment management improvement measures revealed that the provision of education and training opportunities, such as "participation in training courses inside and outside the establishment" and "opportunities to receive guidance and advice from superiors and colleagues," and setting up of consulting opportunities, such as "opportunities to consult with superiors concerning the way of working, contents of duties, and one's career" and "opportunities to listen to the employees' requests when determining work schedule" help strengthen workers' intentions to stay on the job longer. The analysis of the wage aspect shows the tendency that the higher the wage rate is, the longer the worker intends to continue to work. This result indicates that the improvement of the treatment of long-term care workers in terms of wages is effective in retaining them by affecting their attitude toward their job. Among other working conditions, overtime, late-night shifts, and full-time shifts are factors preventing workers from continuing to work. Therefore, it is important for the establishment to come up with a good working system in order to retain long-term care workers. Actually, at the establishments that make sufficient efforts, such as the preparation of opportunities of consultation concerning working condition, worker job satisfaction is high and they tend to have stronger intentions to continue to work.

The results of the analysis of the establishment survey sheets show that OJT and human resource management, such as including guidance to subordinates in the duties of managerial employees or having employees experience training younger staff, are effective for the improvement of ordinary profit. These results suggest that good cooperation with superiors and younger colleagues will help improve the quality of long-term care services by each employee, and thus, will result in the high performance of the entire establishment. This is consistent with the analysis results of the worker survey sheets that the more opportunities workers are provided with to receive

guidance and advice from superiors and colleagues, the higher their job satisfaction is and the stronger their intention to stay on the job is.

It should be noted in this analysis that there is a possibility of an analytical problem called a "simultaneity bias," which appears when a bidirectional causality is established between the profit rate and employment management improvement measures.

Chapter 5: Job separation of long-term care workers: the effects of wage disparity with other jobs

The high employee separation rate is mentioned as a problem in the long-term care service sector for the elderly, and it is pointed out that wage disparity with other jobs is one of the factors. In this chapter, we analyzed the effect of the difference between the wage rate of long-term care staff (home helpers and others (care staff)) and the wage rate expected if they take other jobs on their job separation behavior, and we identified regional differences of such effect. For this, we used individual data from the establishment survey sheets of the "Survey on the Working Conditions in Long-Term Care for FY 2007" conducted by the Care Work Foundation. The analysis results firstly indicate that wage disparity with other jobs has an effect on the job separation of long-term care workers. In the comparison between the establishments where the employee separation rate is relatively low and those where the employee separation rate is high, it was found that the effect of the increase in the relative wages of caregivers to lower the employee separation rate by employment style is greater for the establishments where the employee separation rate is high. This finding suggests that if the wages of long-term care staff were raised in line with the increase in long-term care fees, the effect of increase in the relative wages of long-term care staff to lower the employee separation rate would be greater for the establishment where the employee separation rate is high, as compared with that for those establishments where the rate is low.

Secondly, it was suggested that in "Special City Wards" and "Special A Areas" of the area classifications for the purpose of determining the care service fees, the increase in the relative wages of long-term care workers would reduce the employee separation rate more significantly at establishments where the rate is high. This indicates that if the wages of long-term care workers were raised in line with the increase in long-term care fees, it would have a great impact on the employee retention rate of establishments where the employee separation rate is high, especially in areas where personnel expenses are relatively high. Therefore, in the areas where labor cost is high,

such as Special City Wards and Special A Areas, if the relative wages of long-term care workers remained lower than those of other jobs, it could likely result in chronic shortage of care workers.

Thirdly, it was found that the effect of the relative wages of long-term care workers on their job separation behavior is greater for those with a shorter length of service. It suggests that if wages were raised from the initial wages that were paid when they began working, the number of those leaving the job early would be reduced.

Among influencing factors than wages, it was indicated that license acquisition was an important factor determining the employee separation rate. Estimation results indicate that a high acquisition rate of licenses for a certified long-term care worker and training for license acquisition have a significant downward impact on the employee separation rate. These variables need to be evaluated more strictly because the employee separation rate function may have an endogeneity problem.

Limitations of this analysis include the fact that separation rates used for the analysis were the employee separation rates at each long-term care establishment, classified by type of job and form of employment, and therefore, the job separation behaviors of individuals engaging in long-term care staff are not fully reflected.

Chapter 5: Reference Material

Relationship between income-expenditure and the employee separation rate by establishment

In this material, we examined the relationship between income-expenditure and the employee separation rate by each establishment, focusing on differences among types of care services, using the individual data on the establishment survey sheets of the "Survey on the Working Conditions in Long-Term Care for FY 2007," conducted by the Care Work Foundation. By comparing the revenue-expenditure difference ratio obtained from the above-mentioned individual data and that obtained from the data of the "Fact-finding Survey on Economic Conditions in Long-Term Care for FY 2008," conducted by the Ministry of Health, Labour and Welfare, we grasped the characteristics of the income-expenditure difference ratio obtained from the data of the "Survey on the Working Conditions in Long-Term Care for FY 2007," classified by long-term care service type. Additionally, based on the revenue-expenditure ratio and the employee separation rate obtained from the individual data of the "Survey on the Working Conditions of Long-Term Care for FY 2007," we analyzed the relationship between these two variables by long-term care service type using cross tabulation. The results show that the higher the income-expenditure ratio, the lower the employee

separation rate for certain types of services, such as welfare facilities for the elderly requiring long-term care and establishments providing multifunctional care in a small group home setting. However, in most types of services, no relationship was found between the revenue-expenditure ratio and the employee separation rate.

Finally, in the addendum, we took up the issue of wages as a factor behind the shortage of long-term care workers and conducted analysis with attention paid to structural factors of the labor market.

Addendum: Economic analysis of the issue of long-term care worker shortages

For the study of factors causing the current shortage of long-term care staff, we analyzed whether the two hypotheses based on the "incompleteness of the labor market of long-term care staff," ("buyer's monopoly hypothesis": the local buyer's monopoly of the labor market of long-term care staff, causes constant low wages and a shortage in the supply of long-term care staff; "unprofitable establishment survival hypothesis": the entry and exit of long-term care facilities are not made in accordance with the market mechanism and unprofitable establishments surviving in the market due to the entry regulation, etc. that face labor shortages) and two hypotheses of external shock ("external market shock hypothesis": the shock of increases in job offers and market wages in other labor market than long-term care facility sectors; "policy shock hypothesis": the shock of the lowered long-term care fees in 2006) are valid for the cases of three types of institutions of Long-Term Care Insurance Facilities (Welfare Facilities for the Elderly Requiring Long-Term Care, Healthcare Facilities for the Elderly Requiring Long-Term Care, and Sanatorium Type Medical Care Facility for the Elderly Requiring Long-term Care). We used the individual data from the establishment survey of the "Survey on the Working Conditions of Long-Term Care" for FY 2004, FY 2006, and FY 2007, conducted by the Care Work Foundation. Since there is no objective indicator of the shortage of long-term care staff (i.e., job vacancy rate or job orders filling rate, etc.), we thought it would be possible to identify the causes of the care worker shortage if the wage determination factors were clarified, and therefore, we estimated a wage function with the wages of long-term care staff as a explained variable and the indicators in the above-described four hypotheses, etc., as explaining variables.

The analysis results support the "buyer's monopoly hypothesis" (indicator: the labor market concentration), "external market shock hypothesis" (indicator: unemployment rate) and the "policy shock hypothesis" (indicator: annual dummies), whereas the

"unprofitable establishment survival hypothesis" (indicator: net operating profit [only for FY 2007]) is not supported.

Based on this analysis, we considered policy prescriptions to solve problems suggested by each hypothesis. With regard to the "buyer's monopoly," although the degree of labor market concentration is generally low for long-term care facilities, certain measures would be needed in the limited regions where a local monopoly (oligopoly) is suspected, such as promoting market competition by encouraging market participation through deregulation or raising the minimum wage of the region. However, the latter measure may not be effective, given the extremely low percentage of workers who are being paid less than the minimum wage, according to the said survey. Elimination of the incompleteness of the market through deregulation would be relatively effective, though there is an issue concerning coping with possible side effects, such as excessive competition and the deterioration of the quality of services. In order to reduce the "external market shock," it would be effective to set "additional fees for specific regions" where the competition to obtain workers is harsh and pay additional wages to long-term care staff in those regions. The average wage etc., by business type or the regions to which long-term care personnel are likely to transfer should be referred to. As for the "policy shock," it is advisable in the future revision of the long-term care fees to be careful in determining the amount of reduction (increase) from the perspective of securing personnel on a stable basis. Before revising the long-term care fees, it would be necessary to apply the new fees in the Special City Wards, etc. on a trial basis, to thoroughly examine the effect of the revision on securing personnel, etc.

According to the estimation results, the level of wages actually paid to long-term care staff is higher at public facilities, facilities that have additional operations, and large-size facilities, assuming that external factors are the same. It also needs to be discussed whether the business model of public facilities, facilities with additional operations, and large-size facilities can be applied to other facilities.

Finally, as a point to note, this analysis discussed the securing of care personnel focusing on the aspect of wages. However, the wage is not the only issue involved in securing care personnel. Impacts of other factors than wages are not covered in this analysis, but worker satisfaction with the contents of work or whether workers can make the most of their skills and abilities are also important factors. Additionally, it should be noted that the analysis results of the "policy shock hypothesis" are provisional in that the effect of the policy shock cannot be strictly separated from the effect of the time (year) because, in Japan, the revision of long-term care fees is

implemented simultaneously nationwide.

4. Implications of Analysis Results

The findings obtained from the results of this analysis are summarized below.

- When taking measures to secure and retain long-term care workers, consideration should be given to the characteristics (characteristics of both the duties and the persons engaged, situation, and problems) of long-term care work. With respect to the persons engaged in long-term care work, in particular, the form of employment, type of occupation, age, sex, and various factors, such as whether they earn their living or not, as well as the diversity in their attitude toward working need to be taken into consideration. Additionally, problems in business operations and the dissatisfaction and anxiety of care workers vary by long-term care service type.
- Proper review and enrichment of employment management improvement measures contribute to enhancing the satisfaction and motivation of long-term care workers, eliminating dissatisfaction and anxiety, resolving feelings of isolation and uncertainty about their roles, improving comfortableness in working, reducing stress, and enhancing vocational abilities, thus resulting in securing and retaining care workers. Specifically, measures to provide education and training, to facilitate information sharing in the workplace and communication among employees, and to improve $_{
 m the}$ workplace environment, including health measures community-type approach) are effective. It is also effective to properly treat, evaluate, and assign long-term care workers and provide career choices and working conditions appropriate for diversified long-term care activities and persons engaged in long-term care work. Employment management and mental care are also effective in reducing stress. Defining the roles of long-term care staff is particularly important in regard to in-home long-term care services, while administrative ingenuity is important regarding in-facility long-term care services.
- Measures to improve working conditions, such as wages and working hours, are also effective in securing and retaining long-term care workers.
- Ways of management and the attitude of managerial employees are important for the improvement of the quality of the care personnel and the comfortableness in working. For the improvement of the quality of the care personnel, it is important to implement personnel management methods consisting of "structure building," which is to establish a system for information sharing and "personal consideration" in which superiors and senior staff assist the skill development of each long-term care staff and to secure, appoint, and foster the managerial employees who practice

such methods with clear criteria and the vision on a systematic basis. For the improvement of the comfortableness in working for long-term care staff, establishment of an organizational structure, as well as personal consultation and guidance by superiors and senior staff, are important.

- Employment management improvement measures, including education and training, contribute not only to securing and retaining care personnel but also to improving the quality of services and business operation.
- Attention should be paid to cases where, although problems are recognized, sufficient measures have not been actually taken to improve employment management, or the measures taken by the establishment to retain and secure care workers are not necessarily effective (only stop-gap measures).