

An Auditing of Social Security Related Programs and Its Prospects - Comments on the FY 2003 Audit Report -

Hiroshi YOSHIDA*

(Associate Professor, Graduate School of Economics and Management, Tohoku University)

1. Introduction

The purpose of this paper is to examine the auditing of social security-related programs and their reports, with the FY 2003 Audit Report issued by the Board of Audit of Japan. Also, the prospects of the desirable future direction of such audits will be given.

The auditing of various public accounts and projects is not limited to social security-related programs. Its audit target is wide-ranging, such as public works, education, science and technology, and national defense. This paper, however, mainly focuses on social security-related audits.

2. Importance of Social Security-Related Audits

2.1. Progress of an Aging Society and Increased Payment of Social Security Benefits

Social security-related audits are increasing in importance for the following two reasons. First, Japan is rapidly becoming an aging society. It is aging at the fastest pace and highest level among developed countries in the world. According to the National Institute of Population and Social Security Research (2002), the country's aging rate, which is the percentage that people aged 65 or older occupy in the total population, is 19.9% as of 2005, but it will rise to 28.7% by 2025.

Although it is predicted that the aging of the country will further progress, social security programs for the elderly, such as the public pension and medical care for the elderly, already account for a large percentage of total social security programs. According to the Ministry of Health, Labour and Welfare (2004), social security benefits amounted to approximately 86 trillion yen in fiscal 2004, but in fiscal 2025, when the aging rate will be even higher, the payment of benefits will be almost double that at 152 trillion yen. As a result of Japanese aging, nearly twice the amount of money will go to social security benefits in the future. It is thus natural for social security-related audits to increase in quantitative importance in the audit activities of the Board of Audit of Japan.

2.2. Progress of Aging and Efficiency of Social Security Services

There is another reason for the increasing importance of social security-related audits: it is predicted that financial sources for social security benefits will be tight due to the low fertility. As already mentioned, demographic data shows that Japan's aging rate will further rise in the future.

*Born in 1964. Finished the course at the Graduate School of Economics of Hitotsubashi University and became an instructor at the Faculty of Economics of Meikai University in 1995. Present post since 1997. Visiting Research Fellow of the Board of Audit from 1997 to 1999 (9th term). Member of the Japanese Economic Association and the Japan Society of Public Finance.
hyoshida@econ.tohoku.ac.jp

The aging rate may rise due to an increase in the number of the elderly with increase in longevity. The rate, however, may also rise because of a decrease in the number of younger people, which is caused by the birthrate drop. Based on demographic estimates, the number of people aged 15 to 64 (population of working age) will decline by approximately 20% in the future, from 86 million in 2005 to 72 million in 2025.

A decrease in the population of working age will seriously affect financial sources for social security services because in Japan, insurance contributions and some taxes (mainly income tax) paid by younger generations are used as financial sources for social security service, such as the public pension and health insurance. Therefore in the society in which the population of younger generations decreases while the population of the elderly increases, we have to manage the social security programs for the elder people with less financial resources.

In addition, in an aging society with a low fertility, social welfare expenditures will increase not only for the elderly but also for children. Expenditures for child welfare programs may decrease as a result of a decreasing child population, but more effective child welfare programs will be demanded to solve a low fertility.

For the aforementioned reasons, it will become necessary for the government to provide social security services more effectively and efficiently. In an aging society, financial sources for social security services are restricted, and the government may slightly reduce the scale of its social security projects. Even so, the qualitative importance of social security-related audits will not decrease.

In the audit activities of the Board of Audit of Japan, social security-related audits will increase in importance in terms of both quantity and quality. This paper was written based on this standpoint.

3. Social Security-Related Audits in the Audit Activities of the Board of Audit of Japan

In the foregoing section, it was pointed out that social security-related audits will increase in importance in terms of both quantity and quality in the auditing of the Board of Audit of Japan due to the aging of Japanese society. In this section, how social security-related audits are treated in the FY 2003 Audit Report will be examined.

The Board of Audit of Japan expresses the following as one of the basic policies on auditing activities shown in the FY 2003 Audit Report (page 2). "In response to Japan's social and economic trends and its current fiscal position, the board has decided to focus its auditing activities on the following areas of public administration." Furthermore, the board lists social security as the top field in it.

In addition, table 1 reveals the number of cases reported in the field of social security, which reflects how this field is treated in the audit reports of the Board of Audit.

Table 1 also reveals that the number of cases reported in the social security field is the largest in any fiscal year and accounts for nearly half of the total number. This implies the importance of the social security field in the audit reports of public accounts. Table 2, which shows a breakdown of the accounts, also demonstrates this fact.

Table 1 Number of Cases Reported in the Audit Reports by Field

								(number, %)
	A	B	C	D	E	F	G	A/G
	Social security	Agriculture, forestry and fisheries	Public works	Education	Tax	Other	Total	Rate of the social security field
Fiscal 1997	172	46	27	63	1	57	341	50.4%
Fiscal 1998	127	33	37	40	4	60	269	47.2%
Fiscal 1999	146	22	28	40	5	72	296	49.3%
Fiscal 2000	123	23	38	29	2	70	260	47.3%
Fiscal 2001	150	33	40	7	2	93	312	48.1%
Fiscal 2002	171	27	46	8	4	78	319	53.6%
Fiscal 2003	124	25	41	19	2	83	285	43.5%

Source: The Board of Audit of Japan, *Summary of Audit Findings - the Audit Report and Activities of the Board of Audit (1997-2003)*.

Table 2 Breakdown of Public Accounts in the Audit Report

								(100 millions of yen, %)
	A	B	C	D	E	F	G	A/G
	Social security	Agriculture, forestry and fisheries	Public works	Education	Tax	Other	Total	Rate of the social security field
Fiscal 1997	128.7	68.1	17.3	6.6	13.7	18.8	243.5	52.9%
Fiscal 1998	85.8	8.1	15.0	3.9	22.2	14.6	143.0	60.0%
Fiscal 1999	113.2	61.2	9.0	5.9	14.4	13.8	214.1	52.9%
Fiscal 2000	156.0	5.9	21.8	2.9	11.2	16.9	210.6	74.1%
Fiscal 2001	100.2	37.1	12.9	3.5	10.1	86.6	243.2	41.2%
Fiscal 2002	189.6	115.0	20.6	86.5	13.1	45.1	400.1	47.4%
Fiscal 2003	185.6	115.2	27.2	30.7	8.5	111.9	430.1	43.2%

Source: The Board of Audit of Japan, *Summary of Audit Findings - the Audit Report and Activities of the Board of Audit (1997-2003)*.

Social security-related accounts occupy 40 to 50% of total expenditures in annual audit reports. We need to consider this appropriateness in relation to actual government spending. To check this, table 3 shows the government's expenditures in fiscal 2003 on a System of National Accounts basis.

Table 3 FY 2003 General Government's Expenditures by Purpose
(billions of yen,%)

Purpose	Amount	Rate
1. General public services	12,085.3	6.8%
2. National defense	4,932.1	2.8%
3. Public order and safety	6,821.8	3.8%
4. Economic affairs	26,606.7	14.9%
5. Environmental protection	9,487.4	5.3%
6. Housing and community amenities	4,031.0	2.3%
7. Health	33,909.4	19.0%
8. Recreation, culture, and religion	822.9	0.5%
9. Education	21,116.7	11.9%
10. Social protection	58,304.8	32.7%
Total	178,118.1	100.0%

Source: Cabinet Office, Government of Japan, Annual Report on National Accounts of 2003.

The breakdown of government spending shown in table 3 is calculated on a System of National Accounts basis and according to SNA rules, which are different from the classification rules applied in tables 1 and 2 for the audit reports. Item 7 (Health) and item 10 (Social protection) correspond to social security expenditures in tables 1 and 2. The total percentage that these two items account for in government spending is 51.7% (19.0% plus 32.7%), which is the largest share in total spending. Therefore, social security-related expenditures account for approximately 50% of government spending, even when calculated on a national accounting basis. Thus, we can say the number of cases and amount reported in the social security field in the audit reports are appropriate.

4. Examination of the FY 2003 Audit Report

4.1. Basic Examination Policies

In the following, some social security-related parts of the FY 2003 Audit Report will be examined in reference to the basic policies of the auditing activities shown on pages 2 and 3 of the audit report. According to the basic policies, the Board of Audit of Japan expresses that "The board will conduct audits not only to identify and disclose cases of inappropriate or improper acts but also to evaluate the performance of programs and projects. Thus, the board will conduct audits with a focus on the effectiveness of the current systems of administration, that is, if necessary, the board may present its opinion upon the reasonableness of the current arrangements." The Board of Audit lists the following viewpoints from which they conduct audits: (a) accuracy, (b) regularity, (c) economy and efficiency, and (d) effectiveness.¹⁾

1) For the viewpoints of audit activities, performance audits, and administrative management, see page 12 of Azuma (2005). For theoretical and conceptual ideas about the regularity, effectiveness, and comparison between countries, of social security services and audit activities as well as a relevant comparison with foreign countries, refer to Iwamura (1999).

4.2. Audit Results for the Ministry of Health, Labour and Welfare

The FY 2003 Audit Report shows audit results for the Ministry of Health, Labour and Welfare in Chapter 3.1.8 “Ministry of Health, Labour, and Welfare” (starting on page 177).

4.2.1. Correction of a defect in the audit system and a retrospective review of past audits

First in item (12), the Board of Audit reports that improper spending, i.e., for purposes other than the original intent, was carried out for miscellaneous office expense or consignment (outsourcing) fee. Insufficient supervision by the ministry, noncompliance with accounting regulations, and a lack of recognition of the importance of public money are listed as causes leading to this situation (page 183). In addition to these causes, it would be necessary to pay attention to the following two points.

First, improper spending was carried out through such means as falsifying documents. This implies that the accounting system has an institutional defect that allows such means to exist. It would therefore be necessary to examine the modernization of the entire accounting system, thereby eliminating any possibility of improper spending.

Second, as a result of the FY 2003 audit, it is revealed that improper accounting was done at least since fiscal 1995 (page 179). Also, it is reported that the impropriety was initially detected when a private bank inquired about the bank account through which the improper accounting was done (page 178)

The Board of Audit should examine why it was unable to identify the improper accounting in the earlier audit and demand that the ministry implement corrective measures. The Board of Audit should conduct retrospective reviews of past audits and determine how to improve them.

4.2.2. Background examination and replies from an auditee

In item (13), the Board of Audit points out an improper discretionary contract in relation to the procurement of goods by a regional social insurance bureau (page 183). For the cause of this impropriety, the Board of Audit states that the bureau was not fully aware of its duty to comply with accounting regulations in the procurement process.

But in addition to that, it would be necessary to investigate the fundamental reason for the extremely short delivery period, which caused the bureau to choose single tendering. Also, for a better understanding of the background of the impropriety, it would be useful to include the replies from the auditee that were made regarding the comments from the Board of Audit in the audit reports as and when circumstances permit, including the availability of space in the report to incorporate such replies.

4.2.3. Comments based on quantitative data and reference to efficiency

In item (14), the Board of Audit reports a case of unnecessary irregular spending concerning a service contract on the purchase of systems to print notification sheets (page 188). The reason given by the board was that the introduced printing systems were almost never used, the specific results of which are shown in table 2 on page 190. This reporting method, which points out problems based on quantitative data, can be greatly appreciated. The board points out that only about 103 sheets are printed out per printing system on an annual basis and that “the systems are therefore almost never used” (page 190). The board concludes that the entire spending on the printing systems constitutes irregular accounting. The board, however, could have pointed out that the systems are extremely inefficient as well.

4.2.4. Comparison of regional data and the utilization of results

In items (15) to (19), the Board of Audit points out the insufficient or excessive collection of social insurance premiums and the improper payment of subsidies. The Board of Audit also lists the number of improper cases and the amount spent by regional social insurance bureau and prefectural labor bureau (page 195, etc.) for reference. The list thus shows detailed audit results, but in the future it can be further improved by calculating the occurrence rate of problems by regional bureau and comparing the gap of rates with the national average.

The incidence rate, however, should not be used to accuse a specific regional bureau. Instead, it should be used to clarify the reason why some bureau's occurrence rate is higher than the national average and to improve the entire system by optimizing the allocation of human and physical resources to regional bureaus. Also, in order to understand why a particular regional bureau differs from others in terms of accounting procedures, it would be necessary to incorporate the replies from the auditees that were made regarding the comments of the Board of Audit in the audit reports.

4.2.5. Response to causes of misunderstanding in applications for public funding and subsidies

In item (20) and subsequent items, the Board of Audit reports irregular and improper matters relating to public spending and subsidies for medical charges and medical institutions. Of these matters, many were caused by miscalculation, including the application of erroneous base amounts. The board shows detailed calculations and reports for each of these cases: the calculations that should have been made under each of these programs, what erroneous procedures were actually taken, and how much in excess payments were made as a result.

The board's reasons for these matters were, for example, that the medical institutions did not fully understand the details of the subsidy programs and that the governing prefectures did not sufficiently examine or check the subsidy reports submitted by these institutions (page 258).

It is, of course, unfair that the amounts of subsidies given to institutions in similar situations differ due to the fact that the procedures were not well-checked. In the future, it would be necessary for the subsidy programs to be implemented without mistakes, and as the audit report points out, the parties have to implement the programs more carefully. It would also be necessary to analyze and examine the structure and mechanism of the subsidy programs themselves, including whether the application procedure is too complicated and whether the application form can be improved to prevent errors.²⁾

4.2.6. Verification of effectiveness based on a statistical approach

(1) Evaluation of effectiveness by statistical approach

Starting on page 288, the Board of Audit reports cases of "Measures taken" by the auditees based on the comments from the Board of Audit. In item (1), the board reports a case in which measures were taken to prevent the nonpayment of national health insurance contribution and to raise the payment rate. The board states that it audited municipalities receiving special subsidies from the national government to implement countermeasures against nonpayment, focusing on whether the municipalities were implementing sufficient and proper measures to prevent the nonpayment of insurance premiums, including measures stipulated by laws and regulations (page 291).

The focus corresponds to the "viewpoint of effectiveness to review whether the results of the auditee agencies' implementation of their programs and budgets have obtained the originally intended goals and whether they are effective" listed in the basic auditing policies of the Board of Audit (page 3).

In the audit report, the Board of Audit specifically shows cases in which (a) measures to prevent nonpayment were not implemented enough (page 292) and (b) those in which nonpayment countermeasures stipulated by laws and regulations were not properly implemented (page 293).

This paper focuses on the part of the audit report in which the average payment rates of the 300 municipalities³⁾ receiving special subsidies and the national average were compared to examine the

2) To design a more efficient system for operational purposes, the creation of a system that requires minimum examination of applications and minimum audits after subsidies are granted. With this system, the Board of Audit can concentrate to examine the cases of applicants with questionable intent. For example, such a system can be designed as follows. If an application for a higher base amount is submitted, applicants should prepare documents to prove the appropriateness of the amount with their cost. This imposes the fee of mistakes on applicants. For a proposal on the design of a system that overcomes the limits of audit activities, see Yoshida (2003).

3) On page 292 of the audit report, it is stated that 300 municipalities that received special subsidies for shortages of insurance premiums over the two-year period from fiscal 2000 to fiscal 2002 were audited.

effectiveness of the subsidies (page 294). See table 4 for details.

Table 4 Comparison of National Health Insurance Premium Payment Rates

	A	B	C(=B - A)
	Fiscal 2000	Fiscal 2002	Difference
National average	91.35%	90.39%	Δ 0.96 percentage point
Average of 300 municipalities that received special subsidies for shortages of insurance premiums	89.48%	88.50%	Δ 0.98 percentage point

Source: Board of Audit of Japan, FY 2003 Audit Report, p. 294.

In the audit report, the Board of Audit compares the figures in column C (0.96 percentage point vs. 0.98 percentage point) and points out that the gap between the national average and the average of the 300 municipalities widened during the period from fiscal 2000 to fiscal 2002. Accordingly, the board reports that the special subsidies for shortages of insurance premiums given to implement measures to prevent nonpayment were not effective and improvements should be made regarding this matter (page 294).

The statistical approach taken to estimate the effectiveness of the subsidies can be greatly appreciated; it enlarged and diversified the estimation method. It is expected that audit methods will be more scientific and that scientific audit methods that are applied to individual cases will be more widely utilized for general cases.

(2) Improvement in and development of the statistical approach

Concerning the data shown in table 4 above, the statistical approach can be further improved and developed to more accurately confirm the effectiveness of subsidies.

To more accurately determine the effectiveness of special subsidies, the method of hypothesis testing can be used. Specifically, the method begins with the following assumptions: payment rates and any changes in payment rates will be the same between municipalities that received special subsidies and those that did not. The following probability is then calculated: although the subsidies were not actually effective, the rates will happen to seem to differ. Finally, a hypothesis test is made with a significance level of 5% or 1%.⁴⁾

To implement the aforementioned method, it is necessary to strictly classify the municipalities into those that received special subsidies and those that did not. As shown in table 4, the national average payment rate that was calculated included municipalities that received special subsidies, which may have caused the average to be a bit lower. If the average payment rate of municipalities that never received special subsidies during the period from fiscal 2000 to fiscal 2002 were calculated,

4) If the results of the two groups that are compared differ when there are no actual differences between them, the results are erroneous, and such probability should be minimized to produce reliable results. It is therefore necessary to set the significance level as a percent to ensure reliability, and this should be set by analyzers as they see appropriate. Usually, however, it is preferable to set it at 5% or 10% at most for statistical analysis in the field of social science.

the difference between that average and the average of the 300 municipalities that received special subsidies would have been a bit larger.

Finally, it would be necessary to examine the diversification of verification methods other than the method that uses only special subsidies and reception period as criteria (as shown in table 4) for the following reasons. First, the payment rate does not depend solely on these special subsidies; there might be other factors that affect the rate. Second, some may pose the question that if the municipalities that received subsidies had not received them, their payment rates might have been much lower, and the difference from the national average would have been larger. The difference might be minimized to as little as 0.02 percentage point thanks to the subsidies. To respond to this question, it might be necessary to statistically check the effectiveness of the subsidies by using the payment rate as an explained variable and conducting multiple regression analyses targeting a longer period while using dummy variables that show the reception of the subsidies.⁵⁾

Based on these ideas, in the event that the average payment rate of the municipalities that received special subsidies is a bit higher than the national average, it would be possible to examine whether the result is really significant or whether the result was achieved thanks to the subsidies. For example, if the average payment rate of the municipalities that received subsidies is 0.01 percentage point higher than the national average, it will not be easy to say that their payment rates are higher than the national average. Or there remains the possibility that the payment rate increased because the average income level of the inhabitants of the municipality rose and not because of the subsidies.⁶⁾

(3) Follow-up of improvements made in response to comments from the Board of Audit

Finally, on page 295 and subsequent pages, the Board of Audit shows the improvement measures that the Ministry of Health, Labour and Welfare implemented in August 2004 in response to the comments of the board, including a revision to the criteria for giving subsidies. It would be necessary to conduct a follow-up study to check the effectiveness of these improvement measures.

4.2.7. Background examination and regularity

In item (2), which reports cases of “Measures taken” respond to the indication, the board describes its comments regarding national hospitals and other hospitals, using their next year’s budget and the improvement measures they took (page 295).

Specifically, the hospitals paid for pharmaceuticals at the end of one fiscal year from its budget for the next year by manipulating its accounting, which is in noncompliance with accounting regulations. From the viewpoint of regularity, the Board of Audit naturally pointed this out. The board points out the hospitals’ insufficient awareness and insufficient recognition of accounting regulations, inefficiency in business activities, and unsatisfactory measures to ensure revenues as causes for the matter (page 296). As for improvement measures, it was determined that part of the budget for new medical equipment should be appropriated for the purchase of pharmaceuticals at the end of fiscal 2003, the awareness of proper accounting procedures should be raised, and guidance for better business efficiency should be given. The comments and measures were appropriate, but in view of the special

5) Dummy variables are set at “1” for municipalities that received special subsidies and at “0” for those that did not receive such subsidies. These dummy variables and other factors (the income level of participants of the national health insurance program, industrial structure, system for receiving the payments of premiums, and other variables) are together used as explained variables. It will be confirmed by t-test that the partial regression coefficient obtained regarding the dummy variable for the receipt of subsidies is significantly positive if the grant of subsidies is effective in improving the payment rate. On the contrary, it will be confirmed that the null hypothesis of partial regression coefficient obtained regarding the dummy variable for the receipt of subsidies to be zero cannot be rejected (it should be zero but erroneous results that imply the effectiveness of subsidies could be achieved with a probability of at least 5% or 10%) if the grant of subsidies is not effective.

6) Table 4 targets all municipalities that received subsidies, so problems in the sampling method may not occur. However, careful examinations are required on the effectiveness of the survey to justify it in terms of differences as small as 0.02 percentage point and on the general applicability of the results for the fiscal year to other years.

nature of hospital services, the board could have also examined the background of the matter and the medical system itself.

There are various reasons for the matter. First, unlike other projects, such as the construction projects, it is difficult to discontinue or suspend the hospital projects, or reduce their scale by the judgement of the governing authorities only, even if expenditures seem to exceed the budget. The budget might be inflexibly planned without being closely linked with the details of actual medical services. Also, medical fees might not be sufficiently paid compared with expenditures and indirectly contribute to the problem. Hospitals do not have sufficient funds to buy pharmaceuticals at the end of a fiscal year not because of the medical practices at the end of the fiscal year but because they spent more than they planned prior to the end of the fiscal year. It would therefore be necessary to examine the background for the occurrence of such a situation.

Second, it is indeed necessary to improve the efficiency of medical practices by introducing clinical pathways and other methods, based on the findings of hospital management and administration. However, it is not always easy and/or appropriate to solve the problem by pursuing greater efficiency and ensuring revenues. For example, in the pursuit of greater efficiency in medical practices, hospitals might try to discharge patients who are not very cost effective, which is unfair to patients. Also, there is a possibility that hospitals provide excessive medical services to ensure sufficient revenues, physician-induced demand, which will be against the efficient use of medical resources.⁷⁾

It is important for actual expenditures and the budget to match at the end of the fiscal year, but it is also necessary to examine the effectiveness of national hospitals in terms of the maintenance of the national health standard and efficient use of resources required for the improvement of national health, which are missions to be fulfilled by national hospitals.⁸⁾

4.2.8. Verification of effectiveness, focusing on outcome

In item (3), the Board of Audit reports problems concerning health keeping programs provided to the employees of small and medium-sized business sites as well as improvement measures (page 300). The board states that it conducted audits focusing on the appropriateness of spending for medical examinations made as part of health counseling (page 302).

The Board of Audit states that expenditures for blood and respiratory function testing were paid separately, although they were included in medical charges for regular health checkups conducted by the same medical institution in the same month. It points out that 54.72 million yen (or 463.7 thousand US dollar⁹⁾) could have been saved (page 303).

Regarding this case, the Board of Audit reports that improvement measures were taken to ensure proper payment. It can be appreciated that the comment made by the Board of Audit led to the saving of a large amount of money by more than 50 million yen (or 423.7 thousand US dollar) from expenditures for health counseling services, 460 million yen (or 13.9 million US dollar). In future audits, it may be possible to verify the results of entire health promoting services. Specifically, the Board of Audit may be able to verify what measures were taken for the promotion of employees' health based on the results of health counseling and what improvements were made regarding the medical expenditure and work absence of employees, thereby confirming that expenditures for health promotion were properly appropriated to contribute to the improvement of the health standard of employees working for small and

7) Ellis and McGuire (1996) and Edward et al. (2002) point out that changes were made to medical treatment by U.S. medical institutions including public ones depending upon the payment methods of medical fees. Yoshida (2004) verifies that the revision of the medical fee system in 2001 made Japanese clinics pursue the maximization of their profits.

8) To this end, it is necessary to examine which medical institutions have a large gap between their budget and actual spending and make comparison with private medical corporations of the same size using management indices, thereby examining whether the deficits of the national hospitals are special cases or not. Also, it is necessary to verify the medical results focusing on outcomes (whether the national health standard has been improved or not).

9) 1 US dollar = 118 yen in 2005.

medium-sized companies. For cost savings, it might be better to conduct health-counseling services as part of regular health checkups, but by conducting them separately, the results of measures to promote health after regular health checkups can be better confirmed.¹⁰⁾

4.3. Special Reports

4.3.1. Identification of conditions required to improve the operation of the system

Chapter 4 of the FY 2003 Audit Report shows "Special Reports." Starting on page 838, the Board of Audit reports the cases of collusive bidding for bedclothes rental agreements at national university hospitals and national hospitals.

On page 844, the board points out that (1) the ratio of the successful bid price to the planned price was significantly lower when there was no collusive bidding and new companies participated in the bidding, (2) court precedents regarding claims for damage related to collusive bidding were accumulated, and (3) more than half of the local governments filed claims for damage, and the damage was compensated by the successful bidders. The board demands that national university corporations, the National Hospital Organization, and the National Center for Advanced and Specialized Medical Care should implement measures to ensure proper bidding procedures.

The aforementioned comments of the board are all very important in improving the bidding system. In the future, specific improvements would be made based on such comments, and the conditions for designing and operating a proper bidding system would be clarified.

Regarding (1), research by Domberger, Hall, and Li (1995) reveals that the contract amount for cleaning payments of a private company that was awarded a contract in competitive bidding was much cheaper than the payments of a public organization selected by single tendering with the same quality of service.¹¹⁾ In future audit activities by the Board of Audit, it will become more important to encourage proper competitive bidding, which will reduce business expenditures and improve business efficiency and effectiveness.

Regarding claims for damages on (2) and (3), it is of course important to recover the damage incurred. However, it is doubtful whether claims for damages are effective as a deterrent to collusive bidding and for lowering contract amounts. The final objective of audits by the Board of Audit is not to detect collusive bidding but to prevent collusive bidding in advance and make accounting and financial systems more effective to ensure that hospitals can attain their intended goals. Paradoxically speaking, systems would be complete when they do not need to be audited by the Board of Audit. In the board's audit activities, it would therefore be necessary to identify contracting systems that would not permit collusive bidding as well as conditions required to ensure reasonable contract prices without compromising the quality of services to be provided.

As the Board of Audit points out on page 843, if someone places an order and does not think that he/she has suffered any damage, it will be useless to specify the claimable amount in the service agreement. Collusive bidding arises from an asymmetric information structure and is revealed by an empirical analysis that the provision of claims for damages does not contribute to lowering successful bidding prices.¹²⁾

The Board of Audit states that it is authorized to audit the accounting procedures of contracts but that

10) In the future, the results of services for the promotion of mental health should be also examined. The Ministry of Health, Labour and Welfare (2005) is examining possible revisions to the Industrial Safety and Health Law by 2006 so that the law will stipulate the obligation of employers to implement appropriate measures to ensure the mental health of their employees.

11) According to table 4 in this paper (page 1468), the regression analysis, which uses data obtained from 61 samples, shows that competitive bidding lowered the contract price by 30% to 50% without compromising quality (rather, quality was improved).

12) For the public works conducted by 95 local governments in Japan, Izumida (2005) guesses the determinants of the ratio of the successful bidding price to the planned price by multiple regression analysis. Although sufficient results were not attained regarding determination coefficients, it was revealed that a prior announcement of planned price in competitive bidding contributes to the lowering of the ratio of the successful bidding price to the planned price while a significant relationship between the rate of penalty charges and the rate of the successful bidding price to the planned price was not confirmed.

detecting collusive bidding between bidders prior to the selection of a successful bidder is not included in the scope of its audit activities (page 841). There are, however, arguments about whether the Board of Audit should analyze bidders' behavior before the conclusion of service contracts in its audit activities or not. Analyses conducted by Domberger, Hall, and Li (1995) and Izumida (2005) are based on actual data obtained after the conclusion of service contracts and give various hints on how to lower contract prices. In the future, the Board of Audit should identify the conditions required for proper bidding and give relevant information to the government ministries, agencies, and departments that call for bids.

4.3.2. From fact-finding to analysis

Chapter 4.6 of the FY 2003 Audit Report shows the actual situation of the long-term care insurance system (page 846). As the background for the audit of the system, the Board of Audit states that the first management phase of the scheme, which was introduced in 2000, was over and that a large amount of money was provided from the national treasury obligatory share for the system and that the first review should be conducted in compliance with the law that stipulates that a review of the system should be conducted every five years (page 853). An audit was therefore timely conducted, focusing on sound fiscal management, the promotion of new participants in long-term care services, and the prevention substantiality of long-term care (page 834). The report shows various data for the period from fiscal 2000—when the scheme was introduced—to fiscal 2002 to clarify the actual situation of its management.

The audit results of the long-term care system include many fact-findings because the audit was conducted to determine the actual situation of the system in the first phase as one of its objectives. In the future, however, it would be necessary to include (1) reference materials and facts that only the Board of Audit can show in the audit reports in addition to data announced by the Ministry of Health, Labour and Welfare and (2) additional analyses that will be useful in reviewing the system for the second phase.¹³⁾ For example, table 6 on page 857 of the audit report shows the number of people qualified as requiring long-term care, and the increase in the number of qualified people over the past three years greatly differs by the level of care required. It would be important to identify factors in the long-term care scheme that contributed to the difference and estimate what influence will be exerted on long-term care finances if the number of qualified people continues to increase at the present rate, thereby determining the future direction of the scheme. Also, regarding the effect of long-term care services, it would be important to confirm the effect of rehabilitation on improving the level of care required by the elderly and reducing the burden imposed on the family members of the elderly. In particular, it is necessary to note the fact that the long-term care insurance scheme involves not only the elderly but also their families. On the contrary, a family's situation, in addition to the physical situations of the elderly, might create demands for long-term care. It is also important to note this fact in planning the future direction of the long-term care insurance scheme.

Table 15 on page 864 shows changes in the number of long-term nursing care service providers by type of business. It is rather interesting that the number of social welfare corporations providing long-term care services increased only 1.27 times over the past three years while the number of for-profit corporations providing these services doubled over the same period. It would be important for the audit activities to examine the factors on the participation of private corporations in welfare services for the elderly. The reasons are followings. First, participation of the private sector in welfare services might lead to a reduction in public spending. Second, spending in welfare services might increase the participation of private corporations in welfare services. For-profit corporations can freely locate their businesses and will not conduct business in nonprofitable areas. As the Board

13) For this theme, refer to Tachika and Yui (2004). The paper examines regional difference in insurance benefits and the qualification rate by long-term care level required by regression analysis based on data announced by the Ministry of Health, Labour and Welfare. It statistically checks the inducement of demands by service providers (page 867 of the audit report) and suggests a high benefit payment rate for Okinawa and its fundamental reform.

of Audit points out in its audit report, those who are insured and living in these areas, such as isolated islands, cannot use long-term care services or choose which service to use. This would be quite unfair. Third, if more nonpublic entities participate in the long-term care insurance business, the Board of Audit needs to redefine the scope of its audit activities.

On page 867, the audit report introduces the evaluations of the long-term care insurance scheme by municipalities and prefectures as well as the opinions of the municipalities about the scheme. As mentioned, the Board of Audit's active incorporation of the opinions and replies of governmental ministries, agencies, and departments in its audit report will help readers understand the actual situation and background of long-term nursing care services. So it is useful and greatly appreciated.

4.3.3. Examining the allocation of human and physical resources

Chapter 4.7 of the audit report shows the actual situation of the national pension program. It is based on the idea that it is important to analyze and summarize the recent situation of the national pension plan and the situation of people who are not participating in the plan or those in arrears. This will help people understand more about the plan and to show them problems related to the plan (page 883).

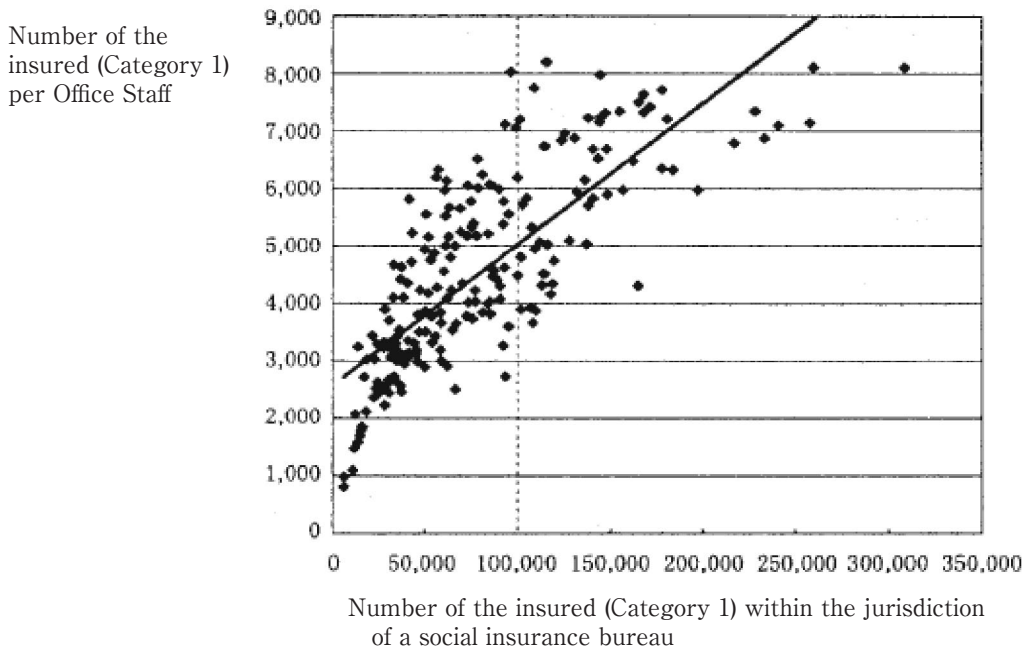
For the public pension program, interest among the people is increasing, and there are many comments made from a journalistic viewpoint. It is greatly appreciated that the Board of Audit analyzes and summarizes the situation of the program based on clear viewpoints, i.e., accuracy, regularity, efficiency, and effectiveness.

This paper will focus on the number of the insured per office staff in the 216 social insurance bureaus. It is shown in figure 6 on page 887.

In the report, the Board of Audit uses a graph that shows that the allocation of social insurance bureaus and office staffs are unbalanced over the country. The use of a graph to examine the appropriateness of the allocation of human and financial resources is very interesting. In the future, it would be also very important that the board will analyze the effect of unbalanced allocation on the actually ratio of national pension premiums payment, based on statistical techniques such as multiple linear regression analysis, and that the board will examine conditions to be necessary to maximize the ration by the optimal allocation of limited staffs and budgets.

Finally, the Board of Audit predicts the future of the national pension program (page 912), which is greatly appreciated because the national pension program will be implemented over the long term.

Figure 1 Number of the Insured (Category 1, including the Voluntarily Insured) per Office Staff of the 216 Social Insurance Bureaus



Source: The Board of Audit of Japan, *FY 2003 Audit Report*, p. 887, Figure 6.

5. Conclusion

This paper aims to examine the audit activities of the Board of Audit and their results in the social security field and give insights into the future direction of audit activities.

The paper first pointed out the increasing qualitative and quantitative importance of social security-related audits in Japanese aging. Next, it examined the treatment of the social security field in audit activities. As a result, it was revealed that social security-related audits and reports have been deemed very important. And it was made known that this corresponds with ratio of the expenditure related social security occupied to the government expenditure in macroeconomics, and that this is the appropriate treatment.

The paper also examined details of the audit report one by one. The Board of Audit pointed out problems based on quantitative data, including the tabulation and comparison of data with the averages of multiple cases. These new auditing and reporting methods are greatly appreciated and expected to be developed further. Also, the Board of Audit reported cases of which audit viewpoints would be expanded from accuracy and regularity to efficiency and effectiveness.

This paper is based on the FY 2003 Audit Report and does not target the historical development of social security-related audits or background factors. It does not analyze or evaluate qualitative changes in social security-related audits from a long-term view. It is, however, necessary to make qualitative examinations of future social security-related audits from a long-term view, which should be done in the future.

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