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Questionnaire Survey on Business Continuity Management (September 2012)

Financial System and Bank Examination Department

Bank of Japan

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【Introduction】

This paper summarizes the findings of the "Questionnaire Survey on Business Continuity Management" conducted in August-September 2012 (6th Survey).

The questionnaire survey has been conducted every other year since 2002 for financial institutions with high shares by transaction values on BOJ Net. The scope of this year's survey was expanded to include all regional banks in order to confirm the readiness of a larger number of financial institutions and to share information more broadly. The survey also covered four central payment and settlement institutions, etc. (Note 1).

As before, the survey included core questions based on "Toward Effective Business Continuity Management: A Check List and Instructive Practices" (revised and expanded version, published March 2010) and additional questions based on "Business Continuity Plans That Worked Effectively When the Great East Japan Earthquake Hit and Those That Needed Improvement," which was published in January 2012. New questions covered examples of measures to be reviewed in light of the experiences of the Great East Japan Earthquake and preparedness for tsunamis and power outages (including rolling blackouts), and alternative answers for questions on disaster scenarios are expanded to include the situation whereby institutions will be unable to use certain locations for a prolonged period due to occurrence of a nuclear accident (Note 2).

The Bank of Japan expects that, having experienced the Great East Japan Earthquake, financial institutions will use the results of this survey to verify their own business continuity management and improve their effectiveness. It also hopes that the survey will bring greater depth to discussions with financial institutions concerning business continuity management and will improve the robustness of Japan's financial system and payment and settlement system.

【Survey coverage】

	2012 Survey		2010 Survey		2008 Survey		2006 Survey		2004 Survey		2002 Survey	
Survey period	Aug.-Sep.2012		Oct.-Nov.2010		Oct.-Nov.2008		Dec.2006-Feb.2007		Sep.-Nov.2004		Aug.-Oct.2002	
Response rate	100%		100%		100%		100%		100%		100%	
	Number of insutitutions	Share (%)	Number of insutitutions	Share (%)	Number of insutitutions	Share (%)	Number of insutitutions	Share (%)	Number of insutitutions	Share (%)	Number of insutitutions	Share (%)
Major banks	11	6.7	12	14.6	12	14.3	12	14.3	14	16.3	14	20.6
Regional banks	105	63.6	22	26.8	17	20.2	16	19	16	18.6	10	14.7
Japanese securities firms	5	3.0	6	7.3	10	11.9	10	11.9	13	15.1	13	19.1
Foreign banks and foreign securities firms	27	16.4	27	32.9	29	34.5	32	38.1	26	30.2	16	23.5
Others(Note 3)	17	10.3	15	18.3	16	19	14	16.7	17	19.8	15	22.1
Total	165	100.0	82	100.0	84	100.0	84	100.0	86	100.0	68	100.0
Central payment and settlement insitutions, etc.	4	—	—	—	—	—	—	—	—	—	—	—

Note 1: Central payment and settlement institutions, etc. were excluded from the tabulation of results because, by nature of their operations, they were considered largely unsuitable for comparison with financial institutions. At the end of this paper is a description of trends in and features of their business continuity management as reference.

Note 2: The previous survey contained questions about backup systems and related issues; these were moved to a separate survey.

Note 3: Central organizations for cooperative financial institutions, money market brokers, trust banks affiliated with securities firms, and trust banks specializing in custodian business.

【Overview of survey findings】

Virtually all respondents reviewed their business continuity management in light of the experiences of the Great East Japan Earthquake. However, only one-quarter responded "effectiveness is assured," while 70% responded "some inadequacies remain" regarding their business continuity management.

Over 90% responded that they have business continuity plans in place for earthquakes and infectious diseases (outbreaks of new strains of influenza and the like). Following the Great East Japan Earthquake, approximately 60% of respondents reviewed causes and events in their disaster scenarios and, currently, 70% include "tsunamis," roughly half include "rolling blackouts," and slightly less than 40% include "accidents at nuclear facilities."

All respondents have identified in advance "critical operations" to be given priority in post-disaster recovery. Roughly 90% responded that they have recovery target times "in place" for "critical operations," and 70% stated that those times are "within 4 hours."

With respect to business resources (people, equipment and locations), more institutions have identified required staffing levels and examined the possibility of actual rendezvous. There are also increases in stockpiles of food, drinking water, and other resources necessary to sustain the "lives of staff members." A considerable number reported "expansion of means of communication" and "expansion in locations with electric power generators installed." Approximately 90% have confirmed the consistency of electric power generator operational conditions with business continuity plans, and half of those identifying issues have already taken steps to increase hours of continuous operation and expand the equipment and systems supplied with electric power.

Decision-making and communication systems are generally in place, and for "important parties" outside the institution, more than 80% of respondents have identified contact information for government agencies, payment systems operators (Japanese Bankers Association, Bank of Japan, etc.), external service providers (excluding group companies), and group companies.

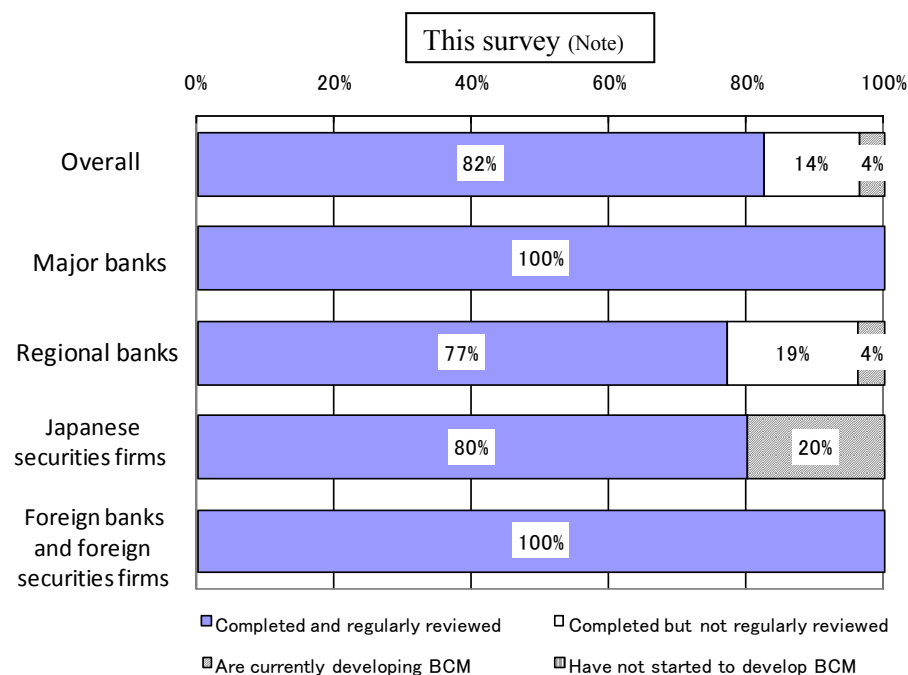
Most respondents have conducted at least one regular training session per year based on a business continuity plan and focusing on core services such as cash supply and funds settlement. More than half responded that they want to expand "companywide training," "real-time, scenario-blind training" and "Street-wide training" going forward.

【Survey findings】

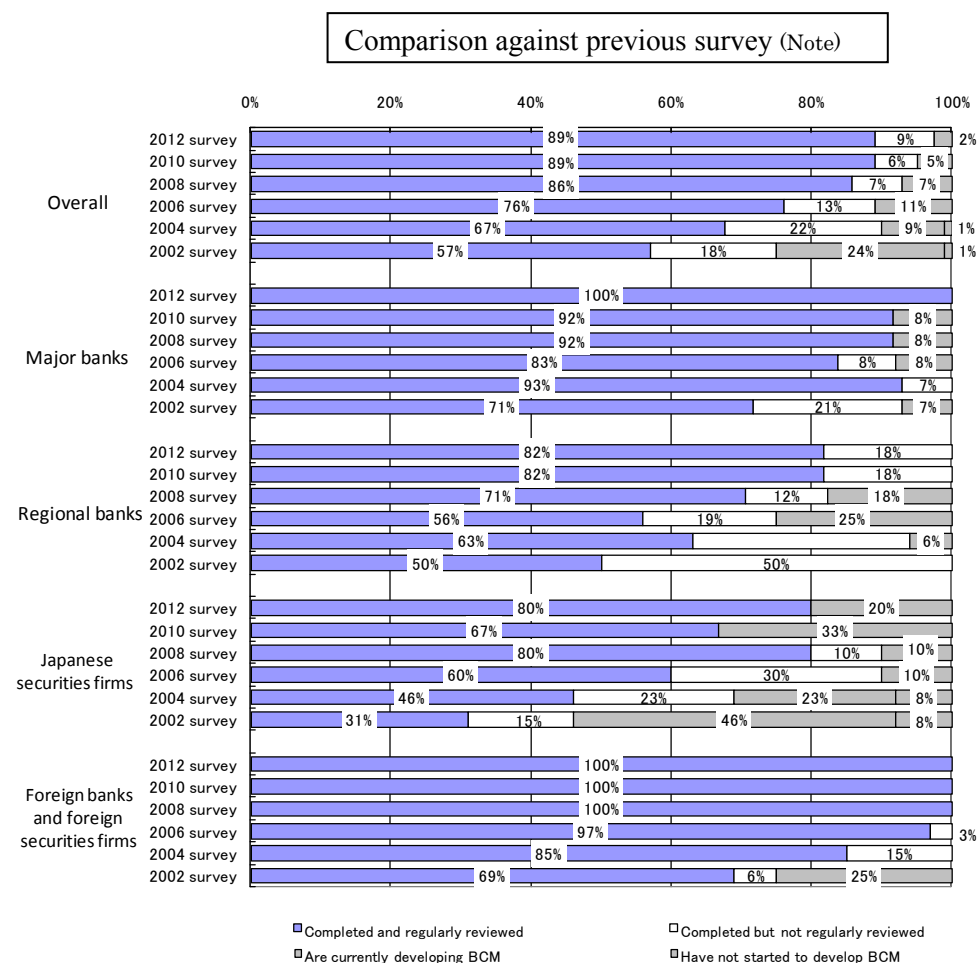
1. Overview

Do you have a companywide business continuity system in place in the event of some form of impediment to the continuity of operations?

- 82% responded that business continuity systems were "completed and regularly reviewed."
- By segment, all major banks and foreign banks/foreign securities firms responded that they were "completed and regularly reviewed."



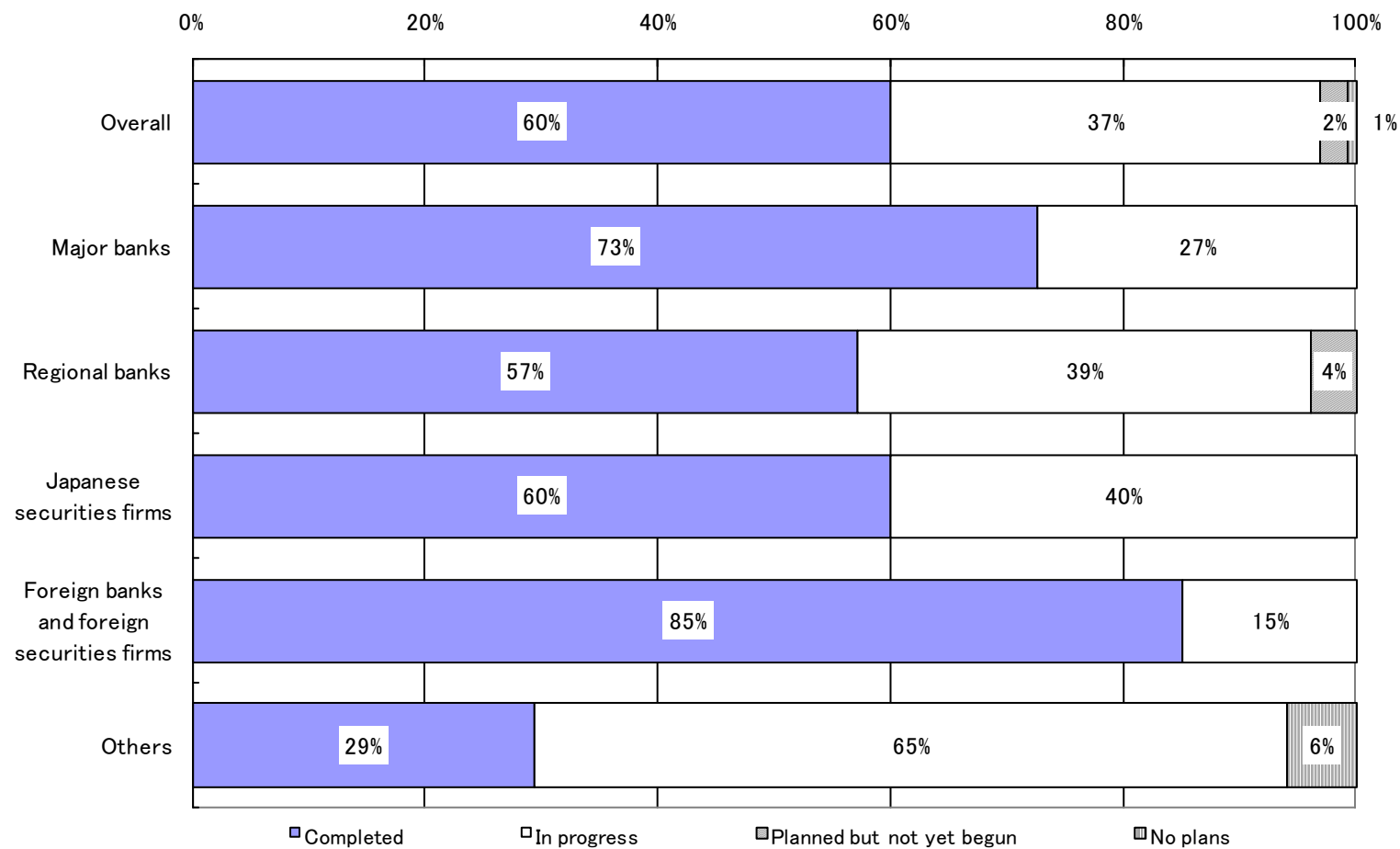
Note: The population for "This survey" consists of 1) institutions of high value-share of BOJ Net transactions, and 2) all regional banks not covered under 1 (total 165 institutions).
 The population for "Comparison against previous survey" is 1 only (total 82 institutions) (same applies throughout).



Have you reviewed your business continuity system in light of the experiences of your institution (Note) and other institutions during the Great East Japan Earthquake?

Note: "Locations in Japan" for foreign banks and foreign securities firms.

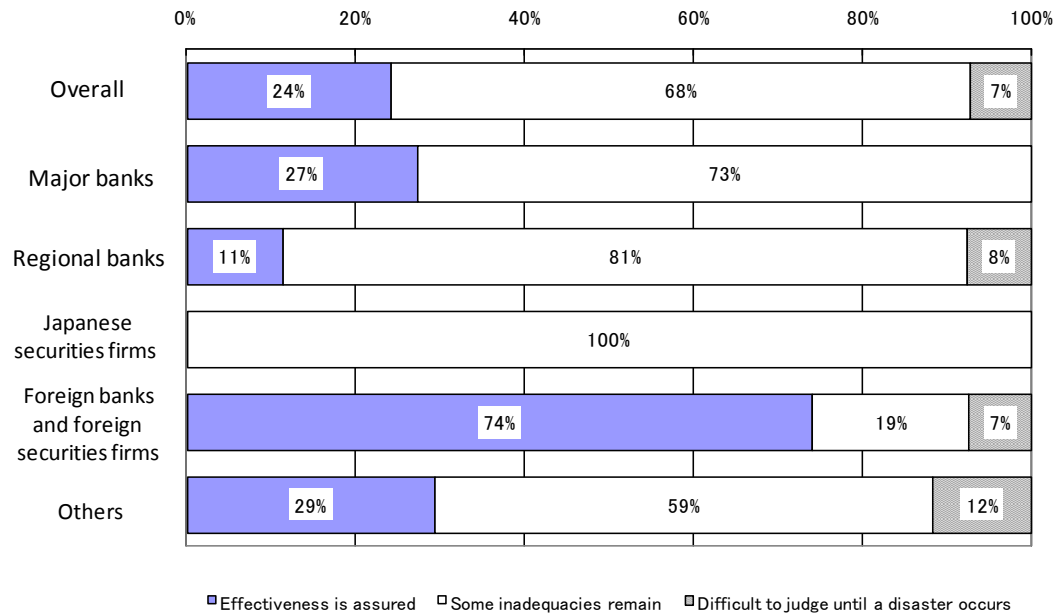
- 97% responded that reviews of business continuity systems in light of the Great East Japan Earthquake were either "completed" or "in progress."
- By segment, all major banks, domestic securities firms, and foreign banks/ foreign securities firms responded "completed" or "in progress."



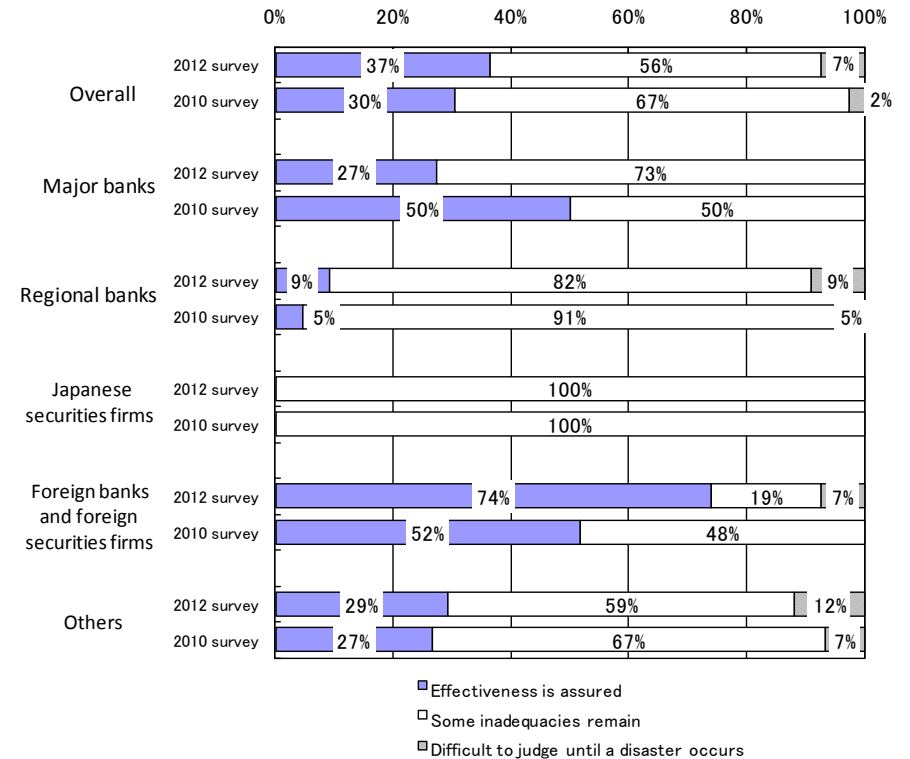
To what extent is the effectiveness of operational continuity assured?

- Only one-quarter responded that "effectiveness is assured" for operational continuity, while about 70% responded "some inadequacies remain."
- By segment, a higher percentage of foreign banks/foreign securities firms responded "effectiveness is assured," while the percentage of major banks declined.

This survey

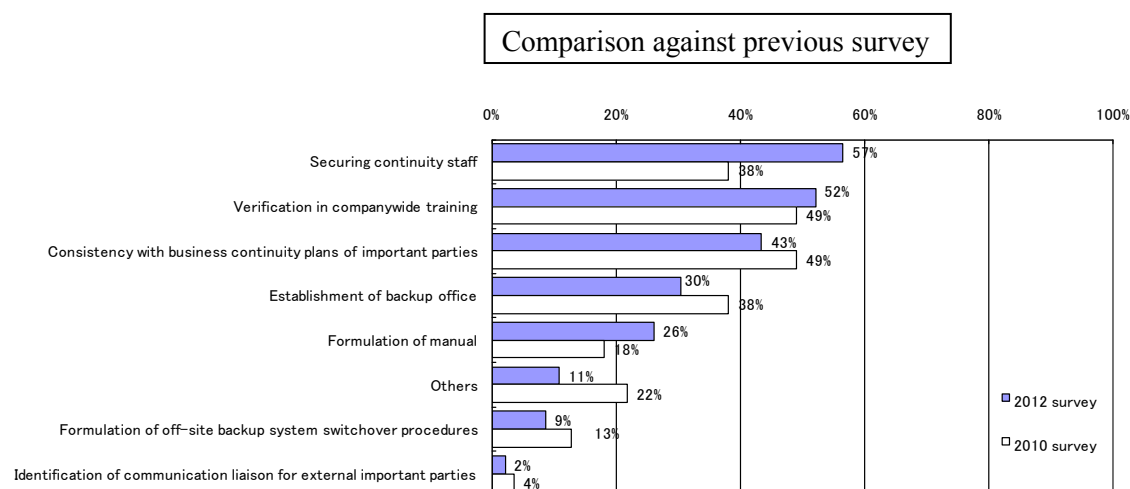
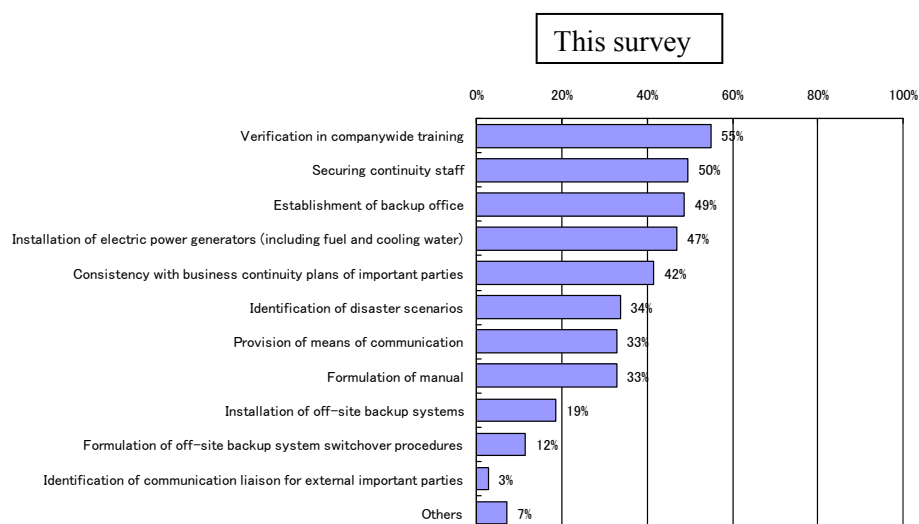


Comparison against previous survey



(For institutions responding that "some inadequacies remain" in the question above) What are the specific areas of inadequacy? (multiple responses)

- With respect to specific inadequacies, roughly half responded that there were issues in "verification in companywide training," "provision of staff," "provision of backup office" and "installation of electric power generators."
- Compared to the previous survey there was a large increase in "provision of staff" and "preparation of manuals," indicating that the experiences of the Great East Japan Earthquake had made institutions aware of inadequacies in preparations to that point.
- By segment, the largest numbers of institutions responding "consistency with business continuity plans of important parties" were found among major banks and foreign banks/foreign securities firms, where the most progress has been made on enhancements to business continuity management.



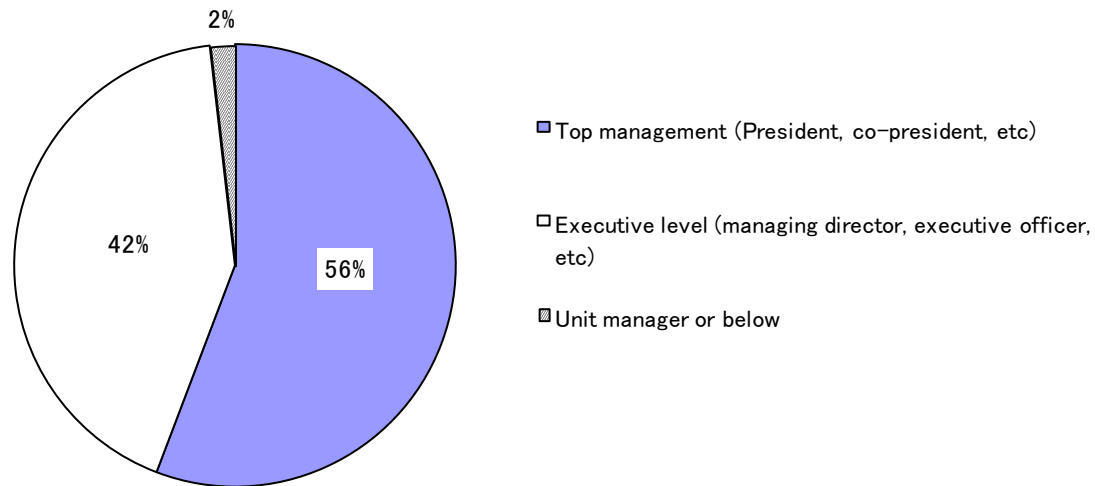
	Overall	Major banks	Regional banks	Japanese securities firms	Foreign banks and foreign securities firms	Others
Verification in companywide training	55%	38%	61%	60%	20%	30%
Securing continuity staff	50%	38%	49%	40%	20%	80%
Establishment of backup office	49%	25%	58%	60%	0%	10%
Installation of electric power generators (including fuel and cooling water)	47%	25%	56%	40%	0%	10%
Consistency with business continuity plans of important parties	42%	63%	39%	20%	80%	40%
Identification of disaster scenarios	34%	25%	38%	20%	40%	10%
Provision of means of communication	33%	25%	40%	20%	0%	0%
Formulation of manual	33%	13%	39%	40%	0%	10%
Installation of off-site backup systems	19%	25%	15%	60%	0%	30%
Formulation of off-site backup system switchover procedures	12%	25%	12%	0%	0%	10%
Identification of communication liaison for external important parties	3%	0%	4%	0%	0%	0%
Others	7%	25%	5%	20%	20%	0%

2. Organizational status

(1) Leadership of management team

Managers providing leadership in the enhancement of systems

• With respect to enhancements to preparedness and response systems, virtually all institutions responded that responsibility rested with a person at "executive level or higher."

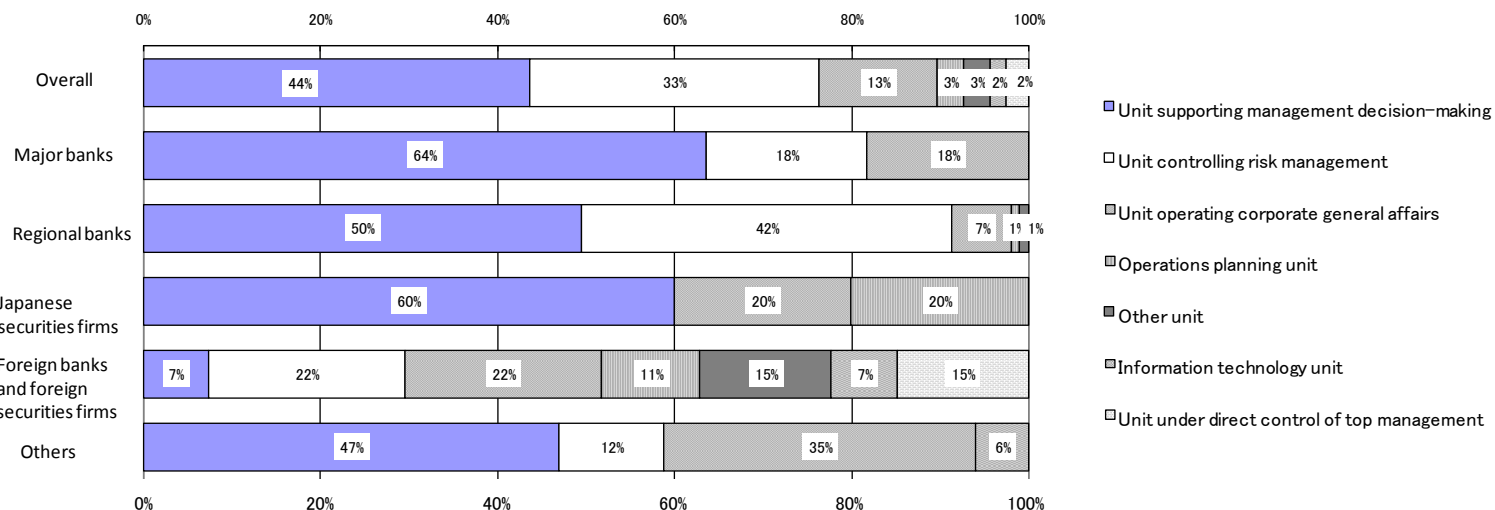


(2) Establishment of supervisory unit

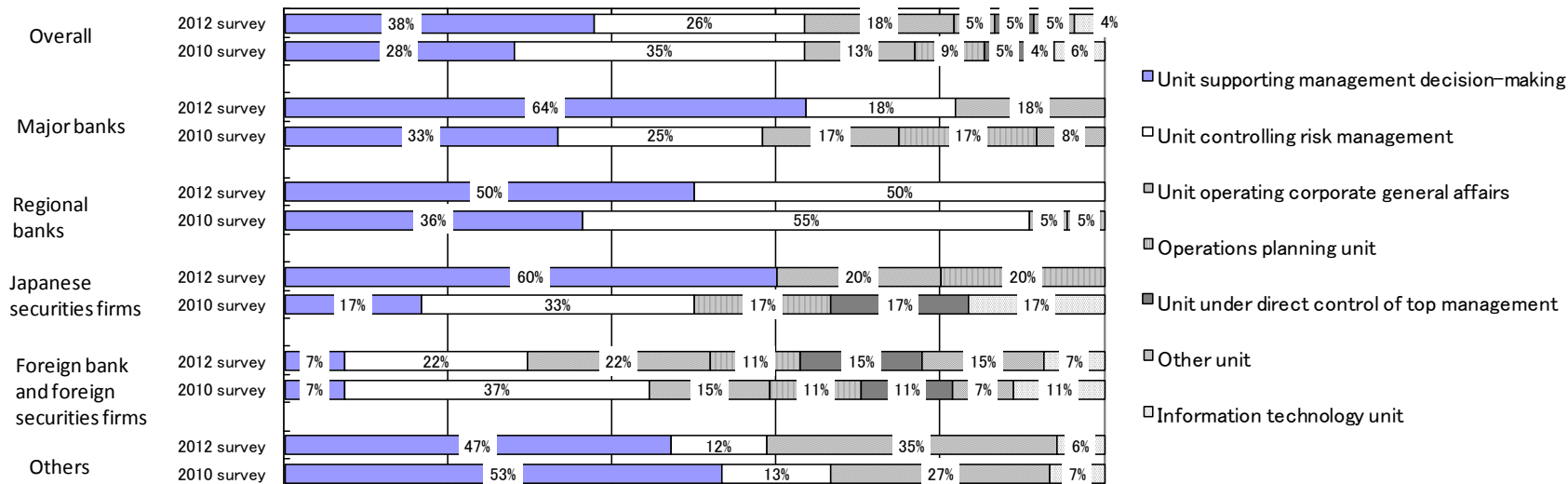
Which unit takes the lead in preparing business continuity?

- Overall, "unit supporting management decision-making" and "unit controlling risk management" were most common.
- Compared to the previous survey, there was a decline overall in the percentage of "unit controlling risk management" and an increase in "unit supporting management decision-making," indicating a recognition of the importance of greater involvement by the management team.
 - Similar trends were observed among major banks, regional banks and domestic securities firms.

This survey



Comparison against previous survey

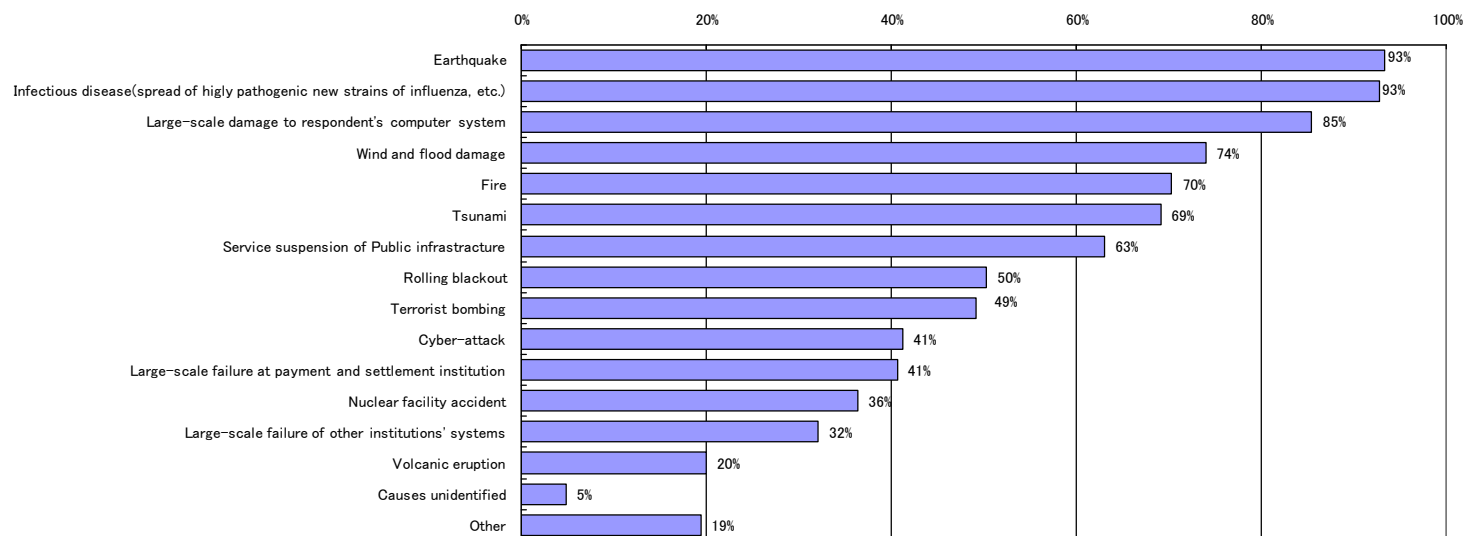


3. Formulation of business continuity plan

(1) Clarification of assumptions

What do you foresee as causes and events in your disaster scenarios? (multiple responses)

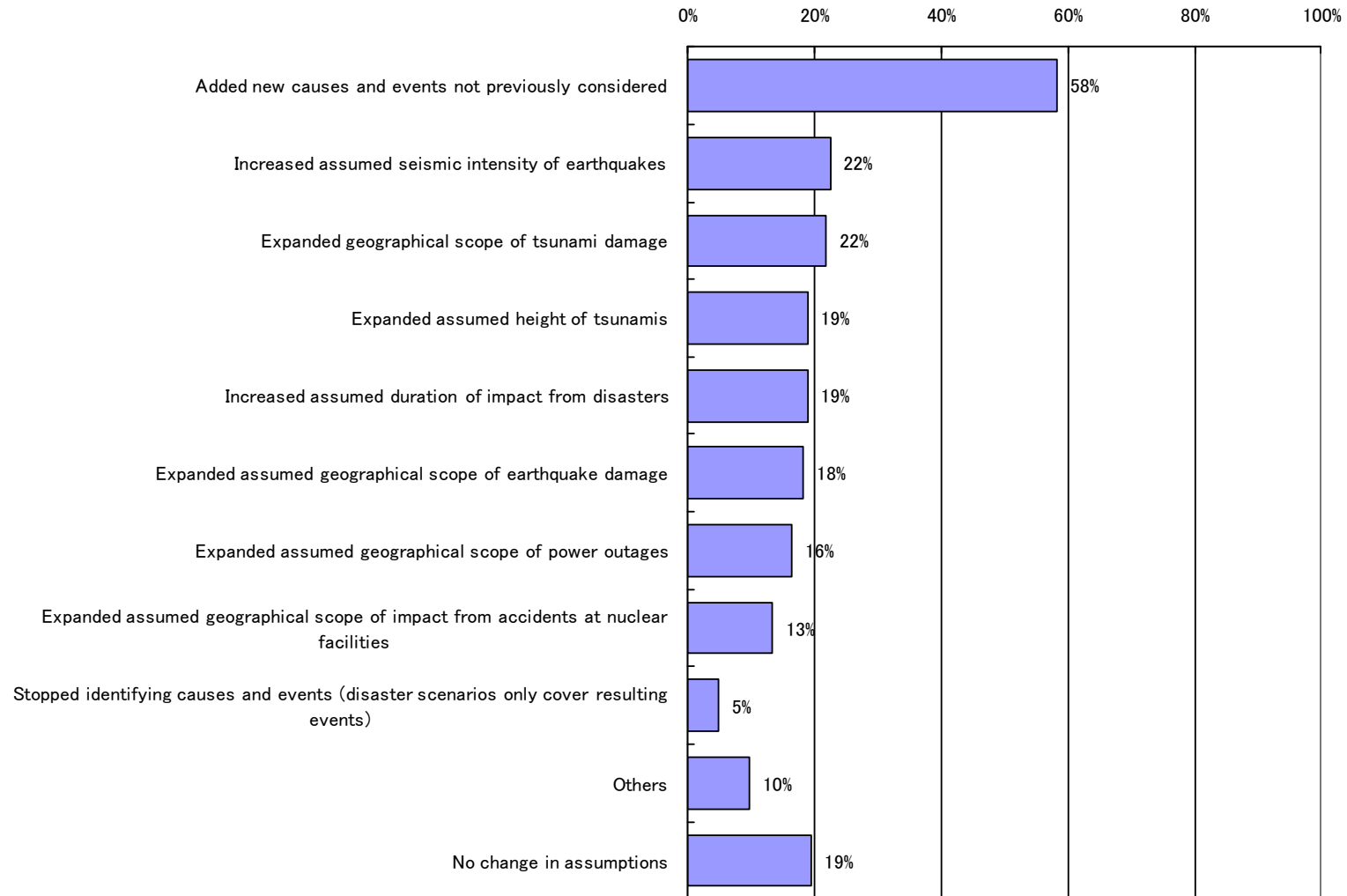
- More than 90% foresee earthquakes and infectious diseases (outbreaks of new strains of influenza) as causes and events in their disaster scenarios. In addition, 70% foresee tsunamis, 60% foresee suspensions of service by public infrastructure, half foresee rolling blackouts, and just under 40% foresee accidents at nuclear facilities.
- By segment, a relatively high number of foreign banks/foreign securities firms do not identify causes and events.



	Overall	Major banks	Regional banks	Japanese securities firms	Foreign banks and foreign securities firms	Others
Earthquake	93%	100%	96%	100%	78%	94%
Infectious disease(spread of highly pathogenic new strains of influenza, etc.)	93%	100%	98%	100%	67%	94%
Large-scale damage to respondent's computer system	85%	91%	89%	100%	67%	88%
Wind and flood damage	74%	82%	72%	100%	74%	71%
Fire	70%	73%	69%	100%	67%	76%
Tsunami	69%	73%	70%	80%	67%	59%
Service suspension of Public infrastructure	63%	91%	56%	80%	74%	65%
Rolling blackout	50%	73%	43%	60%	67%	53%
Terrorist bombing	49%	73%	40%	80%	59%	65%
Cyber-attack	41%	64%	31%	40%	59%	59%
Large-scale failure at payment and settlement institution	41%	55%	33%	40%	56%	53%
Nuclear facility accident	36%	36%	35%	0%	59%	18%
Large-scale failure of other institutions' systems	32%	45%	28%	20%	41%	41%
Volcanic eruption	20%	45%	12%	20%	37%	24%
Causes unidentified	5%	0%	1%	0%	22%	6%
Other	19%	36%	15%	40%	30%	12%

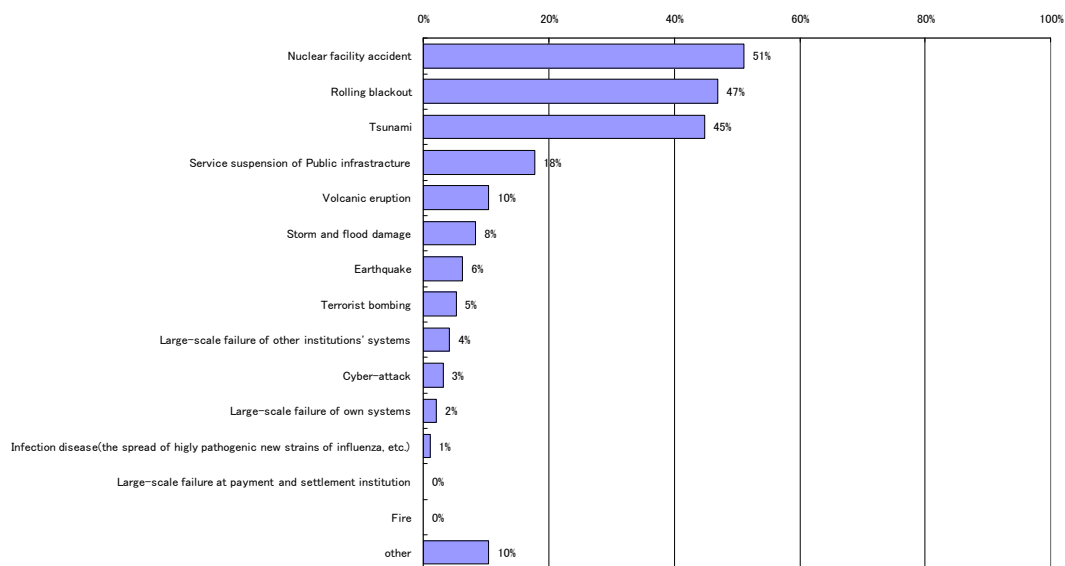
What changes have you made with respect to assumed causes and events since the Great East Japan Earthquake? (multiple responses)

- Since the Great East Japan Earthquake, approximately 60% of institutions have "added new causes and events not previously considered."
- A considerable number of institutions also responded "increased the assumed seismic intensity of earthquakes," "expanded the geographical scope of tsunami damage," and "increased the length of time assumed for disasters."



(For institutions responding "added new causes and events not previously considered" in the question above) Which of the following were added as new causes and events in disaster scenarios? (multiple responses)

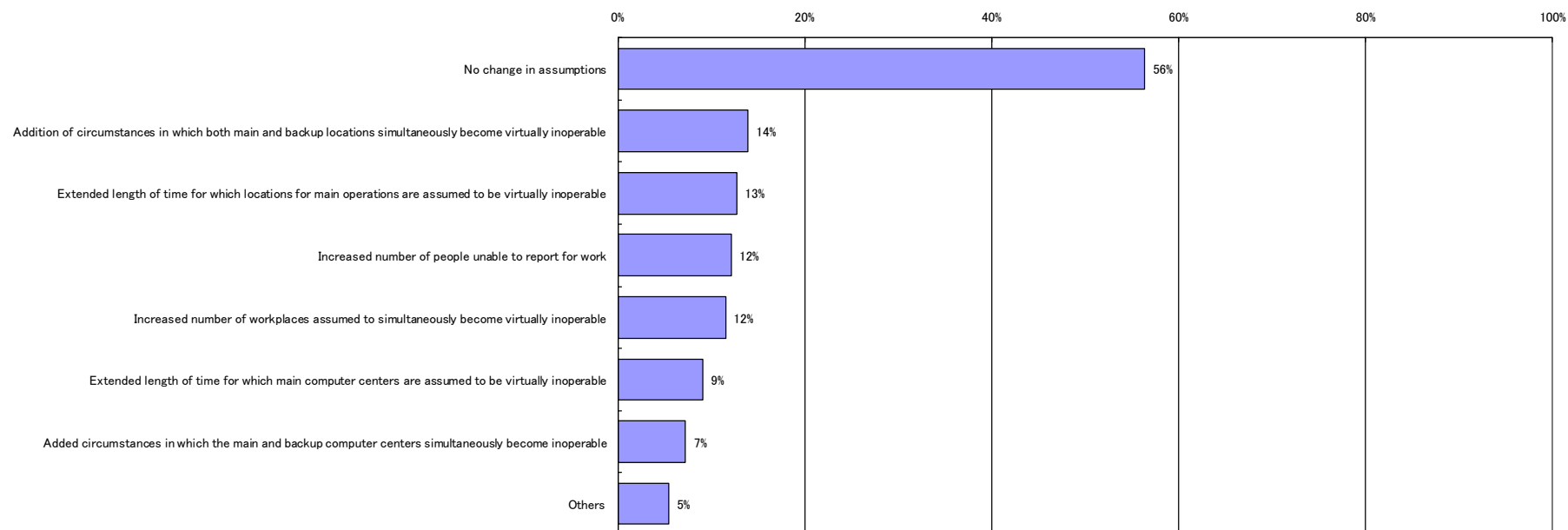
- Roughly half responded that "accidents at nuclear facilities," "rolling blackouts," and "tsunamis" have been added as new causes and events in disaster scenarios since the Great East Japan Earthquake.
- By segment, more major banks added "rolling blackouts;" more regional banks "tsunamis," "accidents at nuclear facilities," and "rolling blackouts;" more domestic securities firms added "tsunamis;" and more foreign banks/foreign securities firms added "accidents at nuclear facilities."



	Overall	Major banks	Regional banks	Japanese securities firms	Foreign banks and foreign securities firms	Others
Nuclear facility accident	51%	38%	45%	0%	100%	33%
Rolling blackout	47%	75%	42%	0%	47%	83%
Tsunami	45%	25%	51%	100%	40%	0%
Service suspension of Public infrastructure	18%	13%	15%	0%	27%	33%
Volcanic eruption	10%	13%	8%	0%	27%	0%
Storm and flood damage	8%	13%	5%	0%	27%	0%
Earthquake	6%	0%	5%	0%	13%	17%
Terrorist bombing	5%	0%	5%	0%	13%	0%
Large-scale failure of other institutions' systems	4%	13%	2%	0%	0%	33%
Cyber-attack	3%	0%	5%	0%	0%	0%
Large-scale failure of own systems	2%	0%	2%	0%	0%	17%
Infection disease(the spread of highly pathogenic new strains of influenza, etc.)	1%	0%	2%	0%	0%	0%
Large-scale failure at payment and settlement institution	0%	0%	0%	0%	0%	0%
Fire	0%	0%	0%	0%	0%	0%
other	10%	0%	9%	0%	27%	0%

What changes have you made in assumed resulting events since the Great East Japan Earthquake? (multiple responses)

• Approximately 60% responded that there had been no changes in their assumptions about resulting events since the Great East Japan Earthquake.

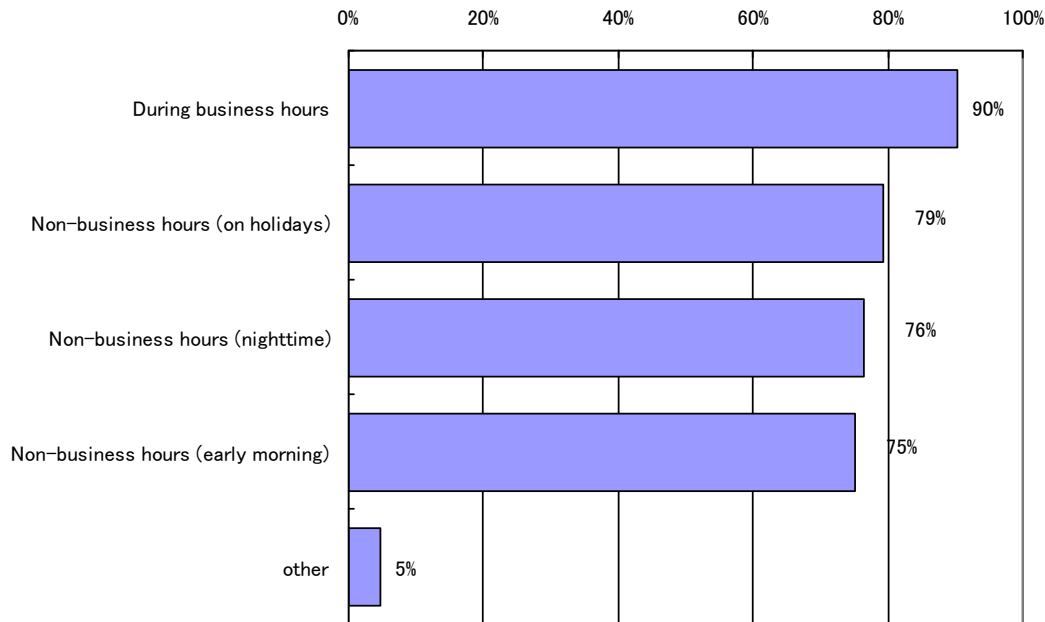


	Overall	Major banks	Regional banks	Japanese securities firms	Foreign banks and foreign securities firms	Others
No change in assumptions	56%	45%	66%	60%	30%	47%
Addition of circumstances in which both main and backup locations simultaneously become virtually inoperable	14%	18%	6%	20%	41%	18%
Extended length of time for which locations for main operations are assumed to be virtually inoperable	13%	9%	8%	0%	30%	24%
Increased number of people unable to report for work	12%	18%	9%	0%	15%	29%
Increased number of workplaces assumed to simultaneously become virtually inoperable	12%	18%	10%	0%	15%	12%
Extended length of time for which main computer centers are assumed to be virtually inoperable	9%	9%	10%	0%	11%	6%
Added circumstances in which the main and backup computer centers simultaneously become inoperable	7%	9%	3%	20%	19%	12%
Others	5%	18%	3%	0%	15%	0%

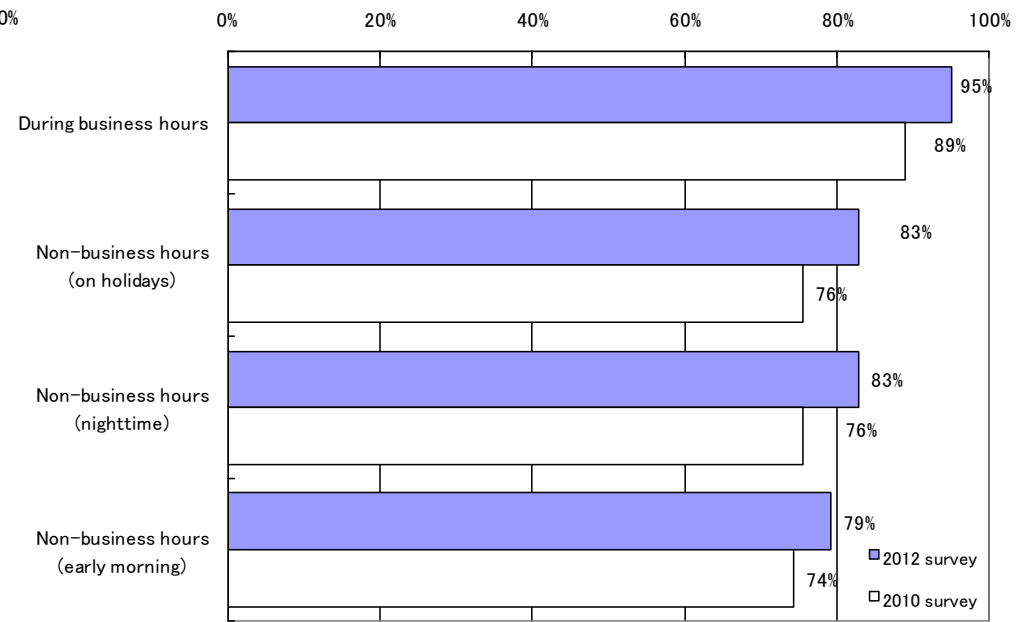
What assumptions do you make about the timing of disaster? (multiple responses)

- Approximately three-quarters envisioned disasters occurring not only during business hours but at nighttime, on holidays, and during other non-business hours.
- Compared to the previous survey, there were increases in the ratio of institutions making assumptions for virtually all time periods.

This survey



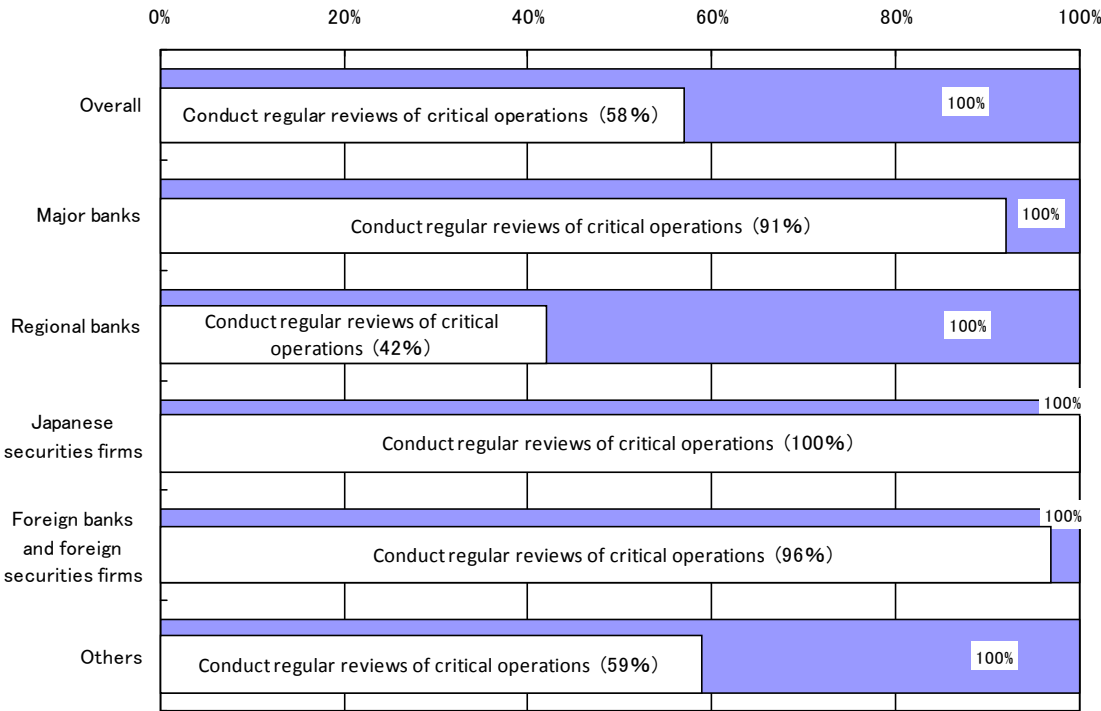
Comparison against previous survey



Have you identified in advance "critical operations" to be given priority in post-disaster recovery?

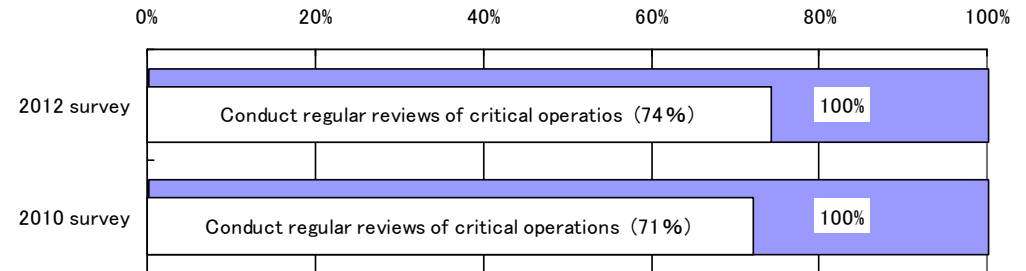
• All institutions identify "critical operations" in advance. Slightly less than 60% regularly review "critical operations."

This survey



■ Identification complete (percentage shown in white; percentages of institutions conducting regular reviews)

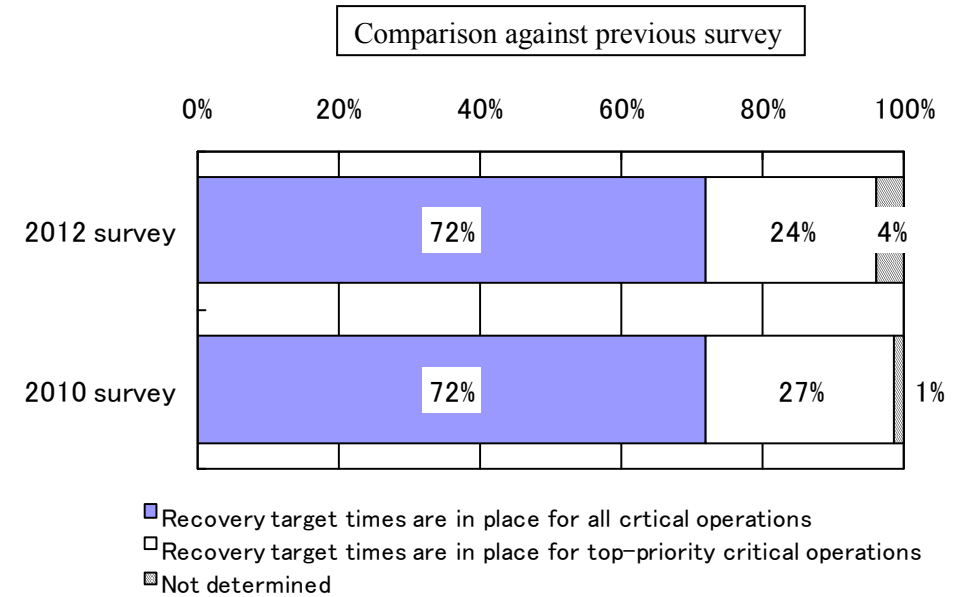
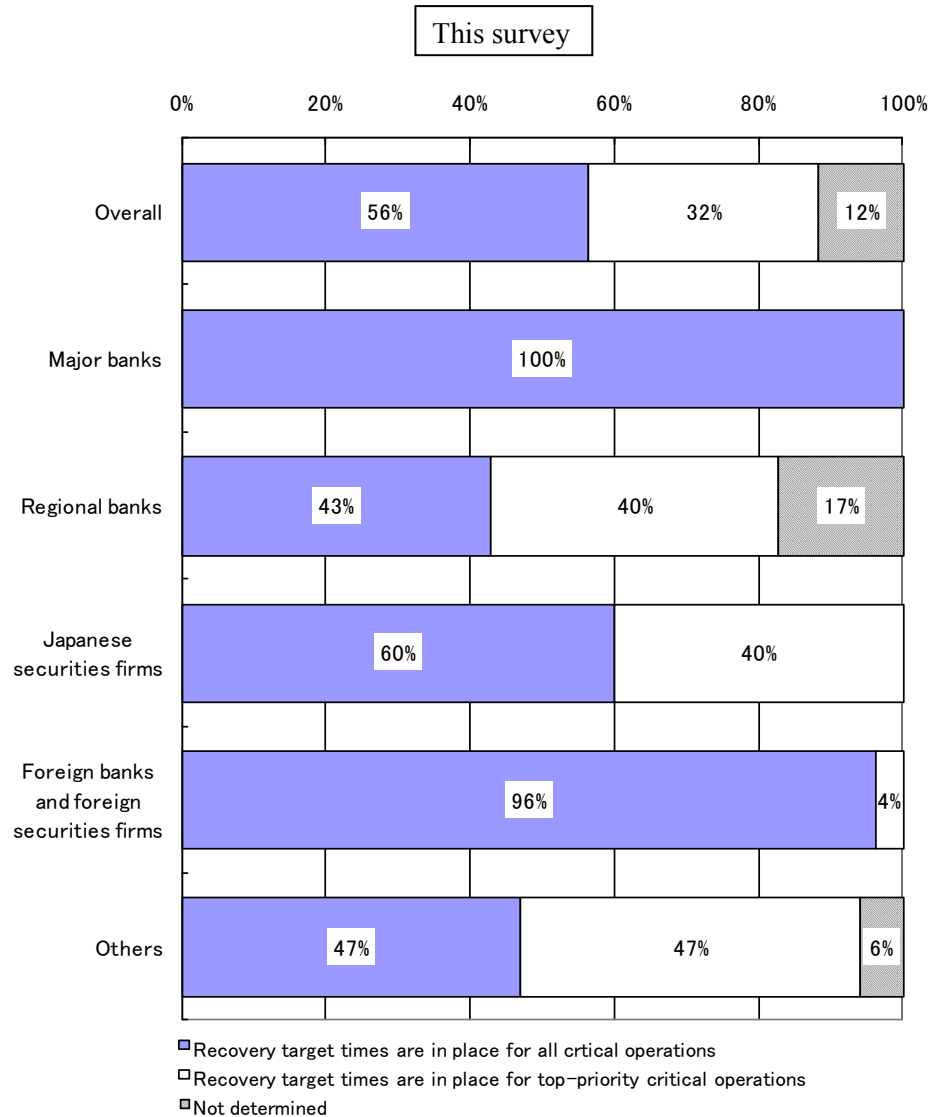
Comparison against previous survey



■ Identification complete (percentage shown in white; percentages of institutions conducting regular reviews)

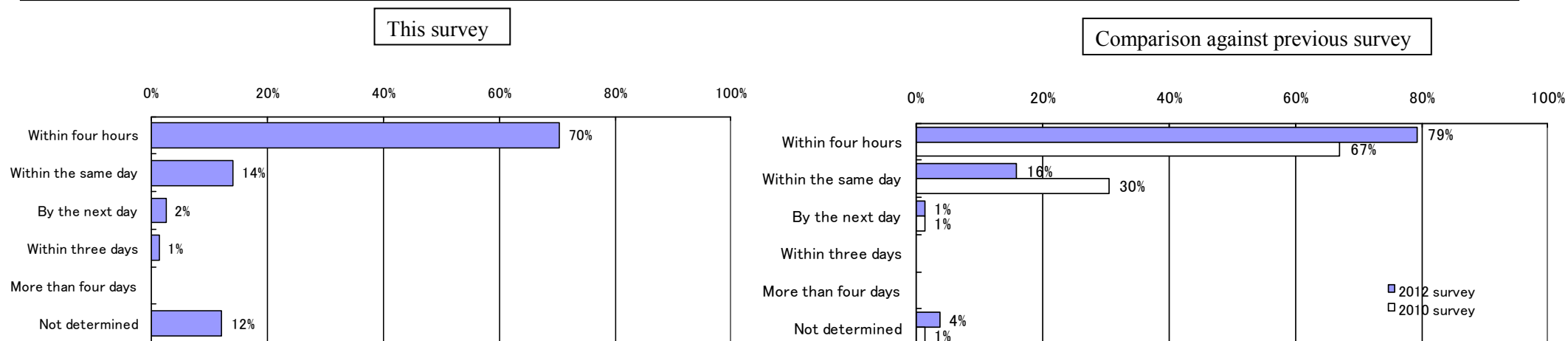
Have you established recovery target times for "critical operations?"

- Approximately 90% responded "in place" for recovery target times for high-priority "critical operations."
- By segment, all major banks and almost all foreign banks/foreign securities firms responded "in place for all critical operations." However, slightly less than 20% of regional banks had not yet put recovery target times in place.



What are recovery target times for the highest-priority "critical operations" among those given priority in recovery?

- 70% responded that recovery target times for "critical operations" given highest priority in recovery were "within 4 hours."
- Compared to the previous survey, there was a decline in the percentage of institutions responding "within the day" and an increase in the percentage responding "within 4 hours."

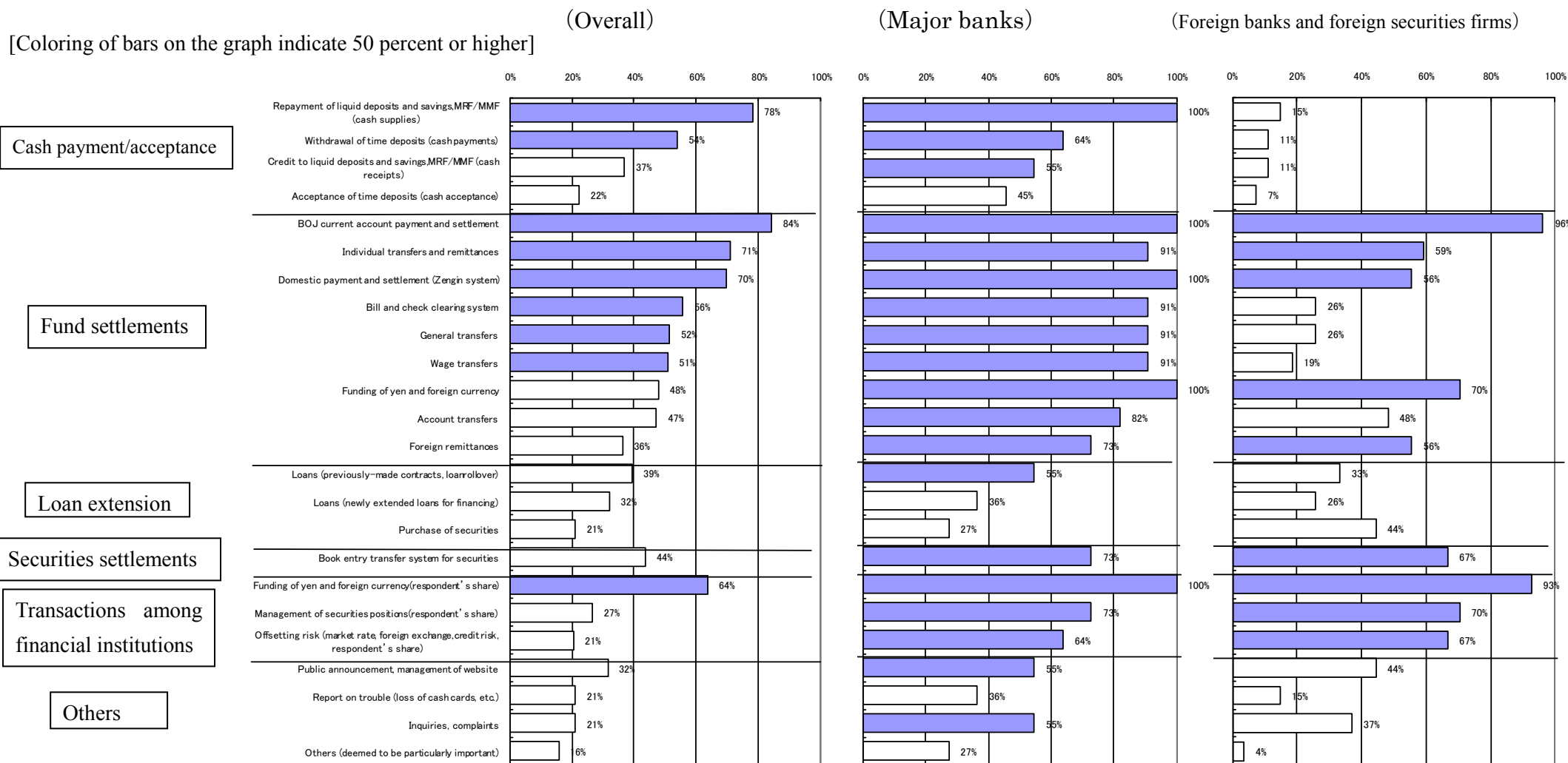


	Overall	Major banks	Regional banks	Japanese securities firms	Foreign banks and foreign securities firms	Others
Within four hours	70%	82%	63%	80%	96%	65%
Within the same day	14%	18%	13%	20%	4%	29%
By the next day	2%	0%	4%	0%	0%	0%
Within three days	1%	0%	2%	0%	0%	0%
More than four days	0%	0%	0%	0%	0%	0%
Not determined	12%	0%	18%	0%	0%	6%

What specifically do you consider "critical operations" given highest priority in recovery? (multiple responses)

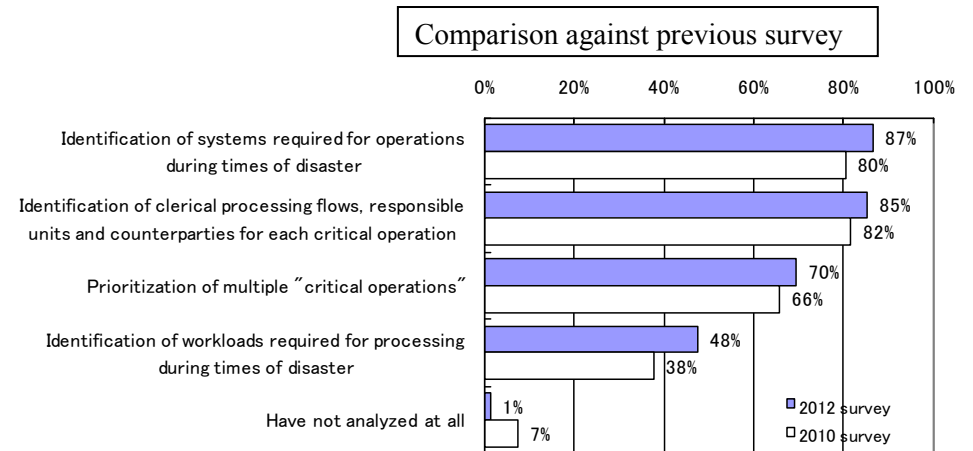
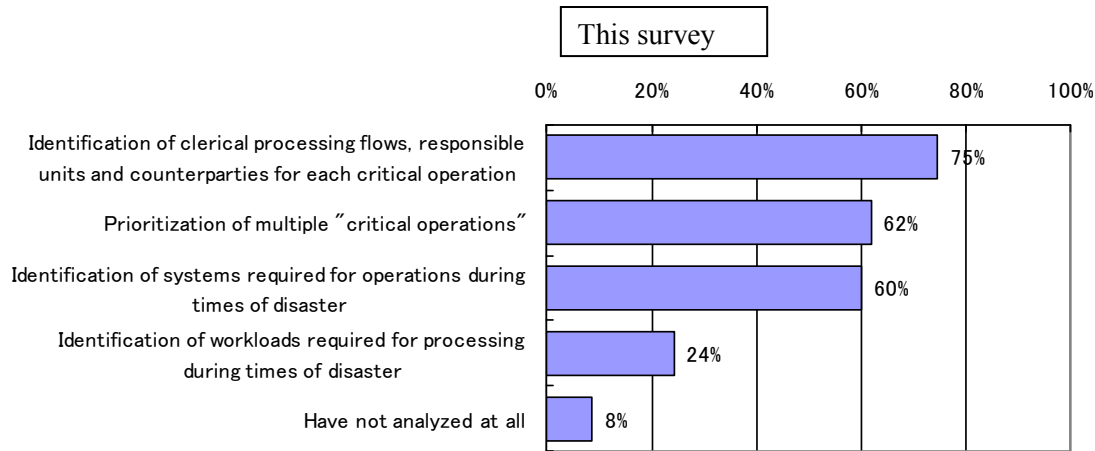
- Overall, most institutions responded that "withdrawals of liquid deposits and MRF/MMF funds (cash payments)" and "BOJ current account payment and settlement" were their "critical operations given top priority in recovery."
- In addition to the above, all major banks responded that "domestic payment and settlement (Zengin System)," "foreign exchange settlement" and "yen/foreign-currency cash flow" were "critical operations given top priority in recovery."
- Almost all foreign banks/foreign securities firms identified "BOJ current account payment and settlement" and "yen/foreign-currency cash flow."

[Coloring of bars on the graph indicate 50 percent or higher]



What have you done regarding analysis of "critical operations"? (multiple responses)

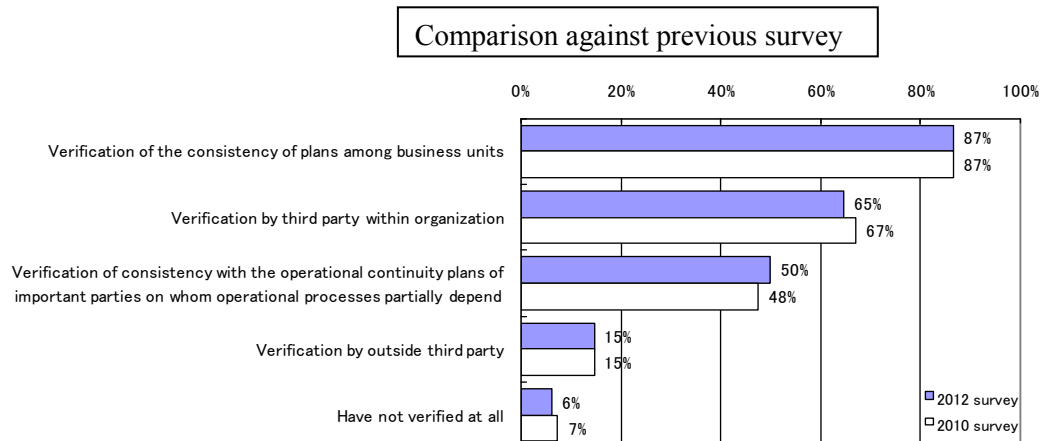
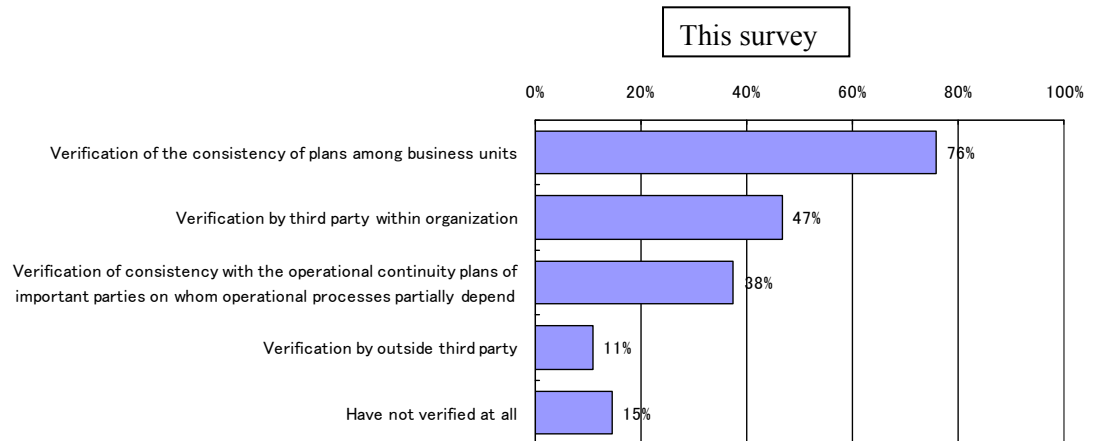
• With respect to analysis of "critical operations", more than 60 percent "identify clerical processing flows, responsible units and counterparties for each critical operation", "prioritize multiple critical operations", and "identify systems required for operations during times of disaster".



(2) Verification of content of business continuity plan

Who verifies your business continuity plan? (multiple responses)

• With respect to verification of the content of business continuity plans, more than 80 percent "verify the consistency of plans among business units", whereas less than 40 percent "verify consistency with the operational continuity plans of important parties on whom operational processes partially depend".

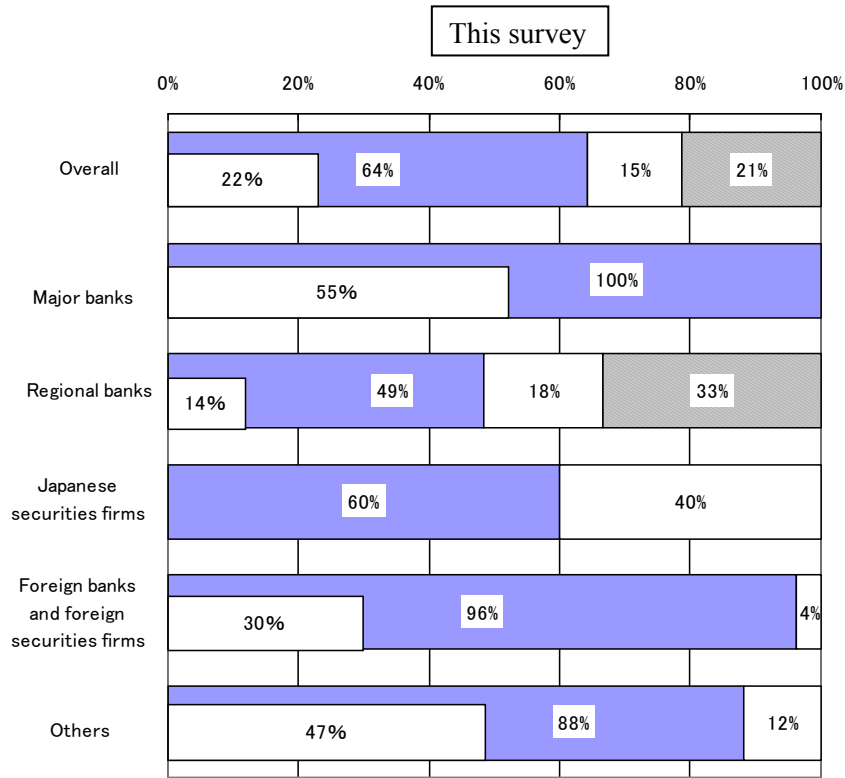


4. Securing business resources, etc.

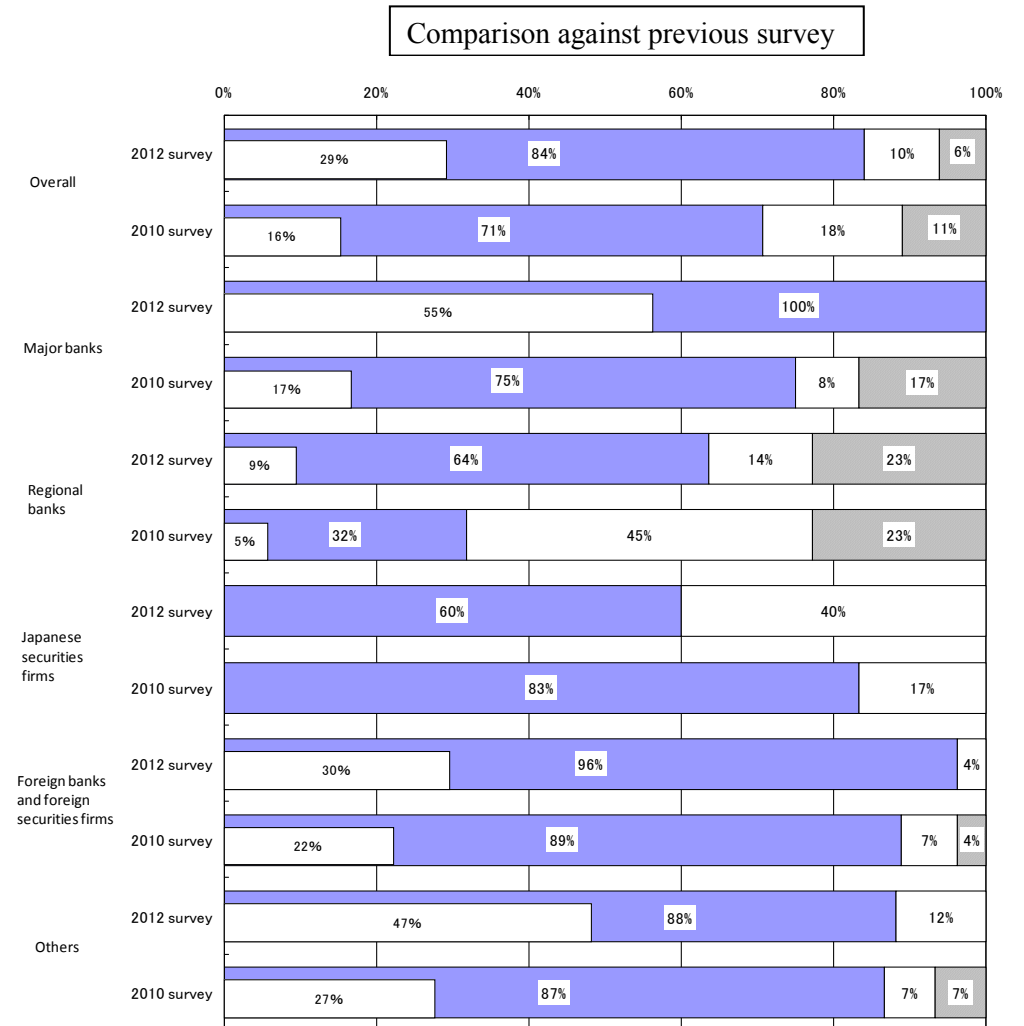
(1) Securing general business resources

Which best describes your provision of staff required for operational continuity?

- Overall, more than 60% identify the emergency staff required for operational continuity, but only 20% have examined the possibility of actual assembly.
- 30% of regional banks have not performed any estimates of staffing requirements.



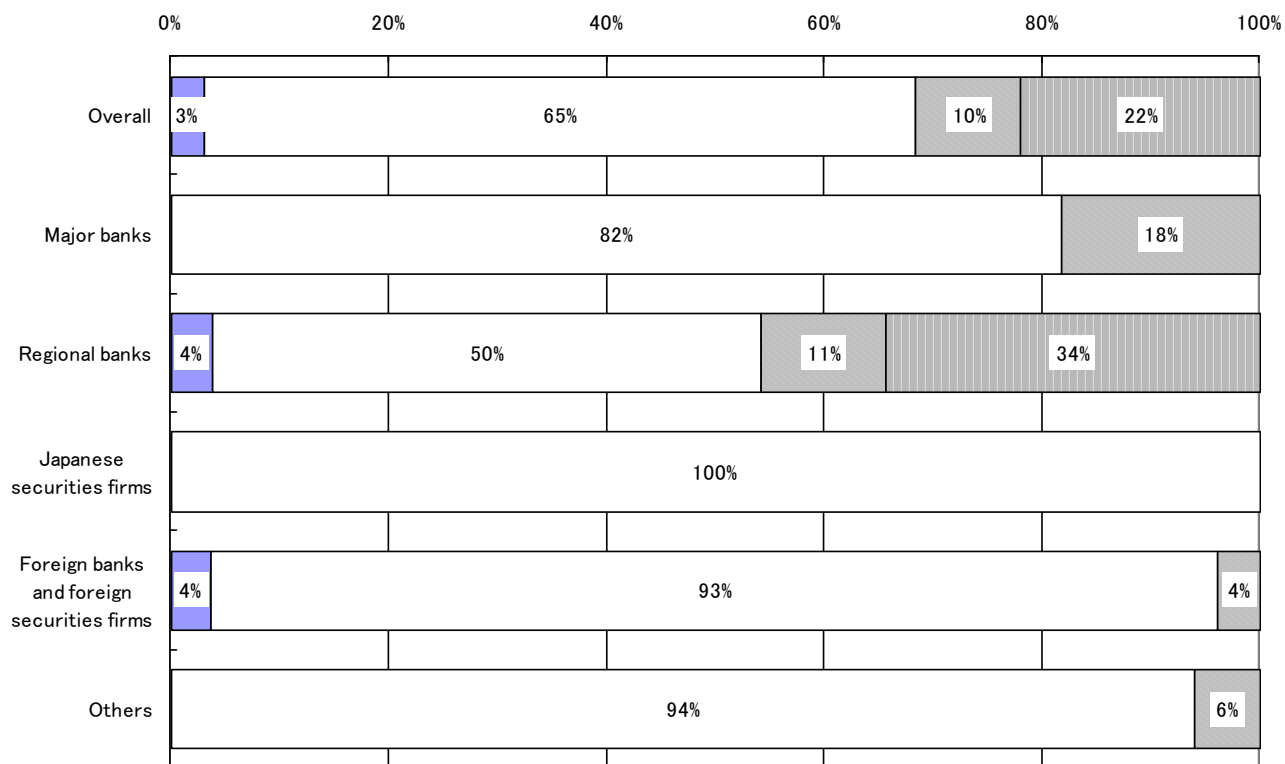
- Assigned critical operations staff (percentages shown in white; percentages of respondents that have already examined the possibility of assembling such staff)
- Examined the number of critical operations staff (staff yet to be assigned)
- Have not estimated the number of critical operations staff (estimation of such staff numbers is a future issue)



- Assigned critical operations staff (percentages shown in white; percentages of respondents that have already examined the possibility of assembling such staff)
- Examined the number of critical operations staff (staff yet to be assigned)
- Have not estimated the number of critical operations staff (estimation of such staff numbers is a future issue)

What is the overall size of your backup office? (Compared to operations performed at the backup office)

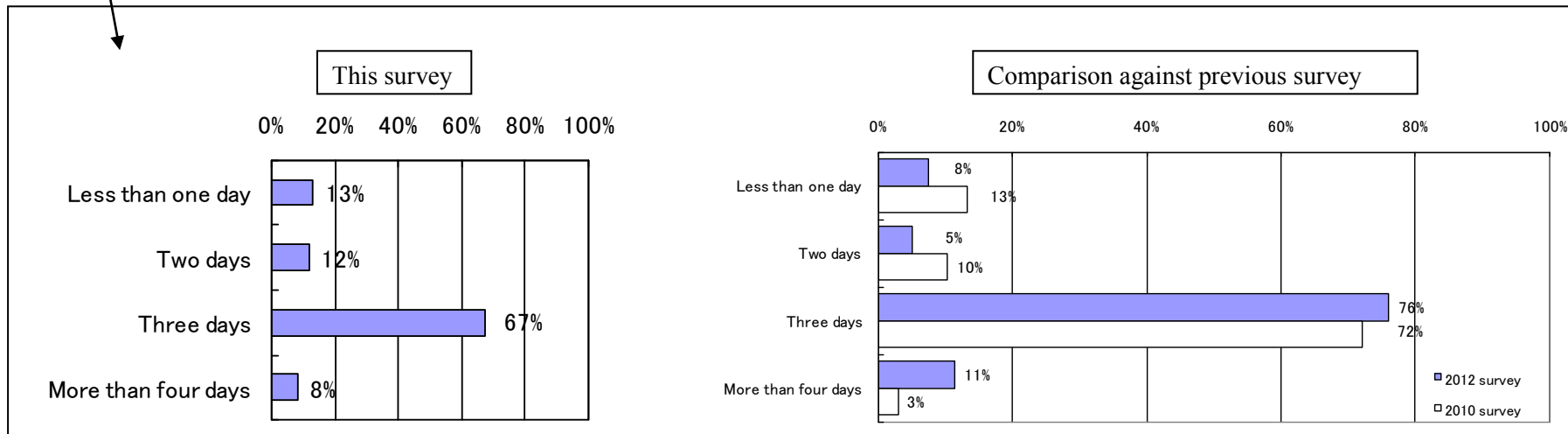
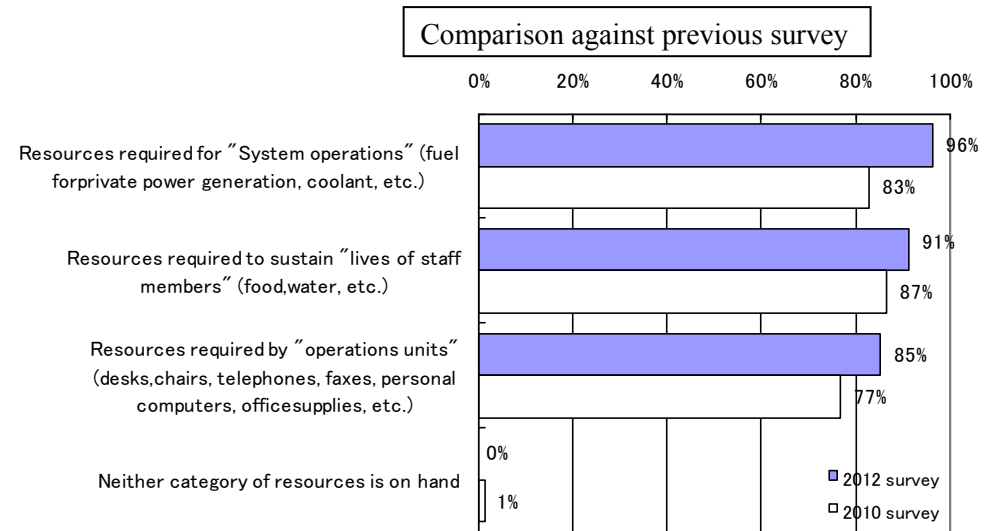
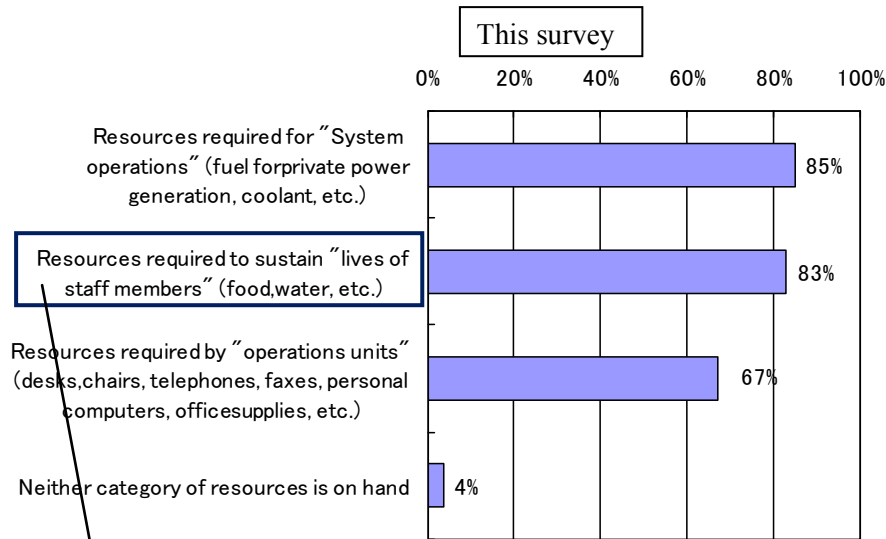
- More than 60% responded that the overall sizes of their backup offices were sufficient to be "able to accommodate the minimum number of staff required to perform operations."
- However, 10% responded "unable to accommodate the minimum number of staff required to perform operations" and 20% "unknown/not in place."
- By segment, significant numbers of major banks, domestic securities firms and foreign banks/foreign securities firms responded "able to accommodate the minimum number of staff required to perform operations."



- Able to accommodate all staff performing operations at non-emergency times
- Able to accommodate the minimum number of staff required to perform operations
- Unable to accommodate the minimum number of staff required to perform operations
- Unknown/not in place

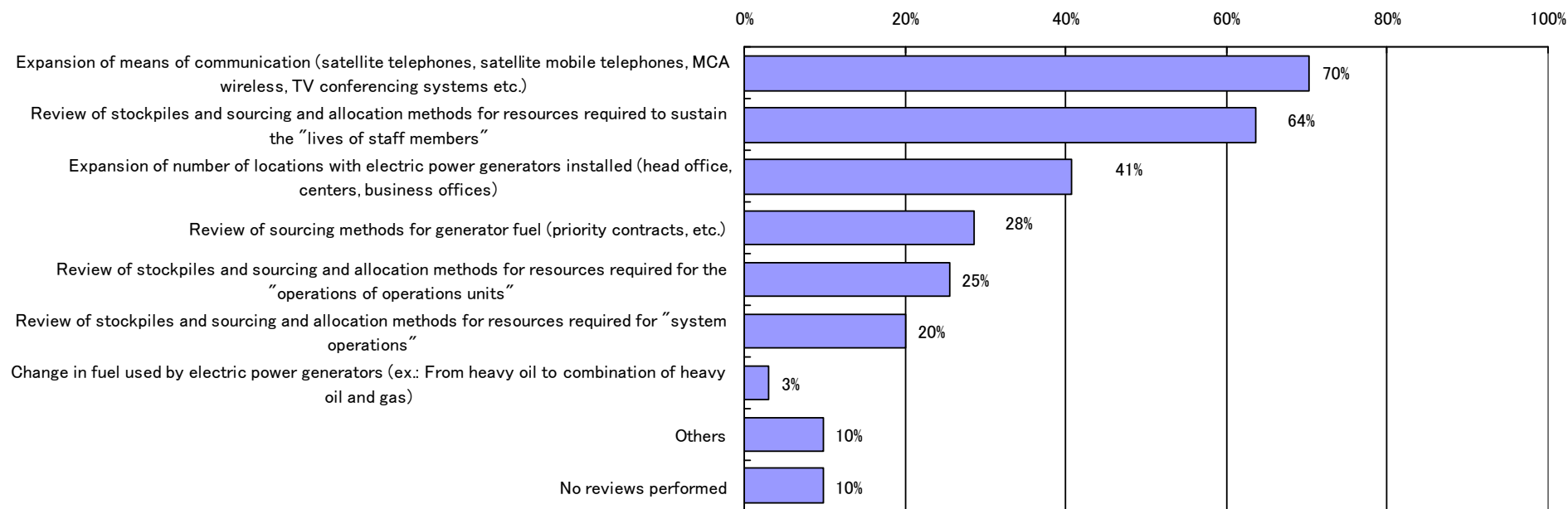
Which of the resources required for operational continuity do you have on hand at the current point in time? (multiple responses)

- More than 80% responded that "resources required for system operations" and "resources required for the lives of staff members" were on hand, an increase from the previous survey.
- More than 70% responded that they had at least 3 days' stock of resources required to sustain the "lives of staff members," an increase from the previous



Which of the resources below required for operational continuity have you finished reviewing since the Great East Japan Earthquake? (multiple responses)

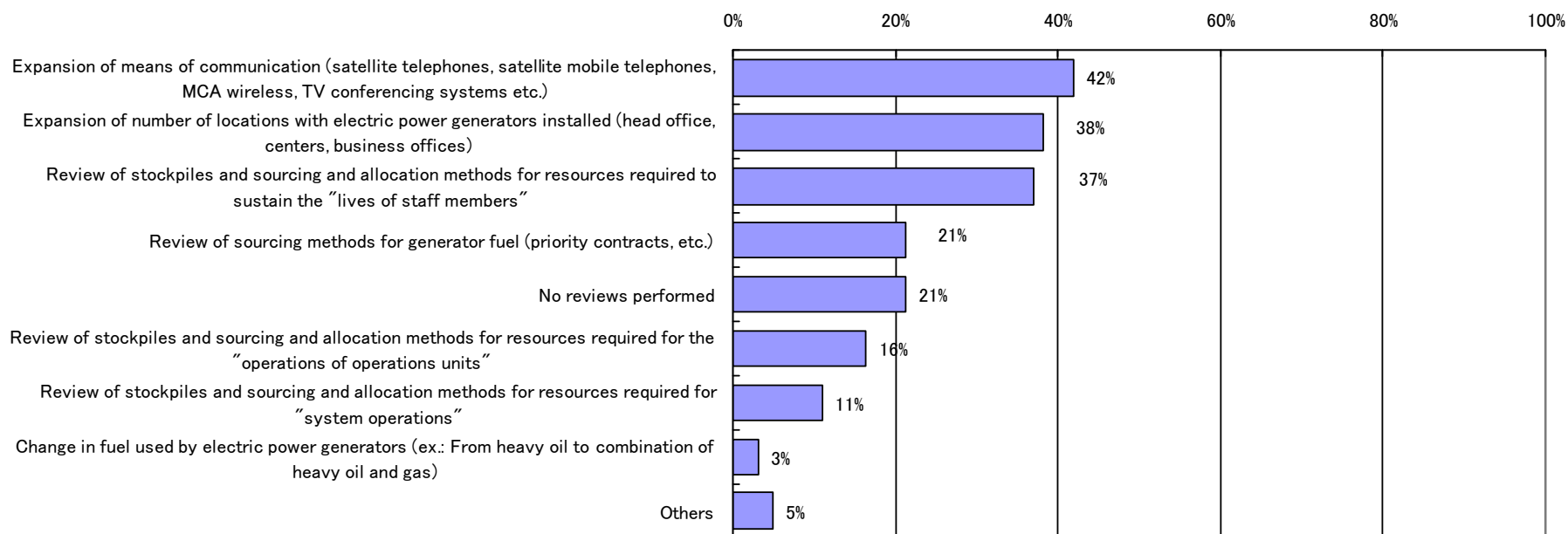
- More than 60% responded "expansion of means of communication" and "review of stockpiles and sourcing and allocation methods for resources required to sustain the lives of staff members," and 40% responded "expansion of number of locations with electric power generators installed."
- By segment, a high percentage of major banks have "reviewed sourcing methods for generator fuel."



	Overall	Major banks	Regional banks	Japanese securities firms	Foreign banks and foreign securities firms	Others
Expansion of means of communication (satellite telephones, satellite mobile telephones, MCA wireless, TV conferencing systems etc.)	70%	82%	63%	80%	85%	82%
Review of stockpiles and sourcing and allocation methods for resources required to sustain the "lives of staff members"	64%	64%	59%	80%	85%	53%
Expansion of number of locations with electric power generators installed (head office, centers, business offices)	41%	36%	52%	40%	11%	18%
Review of sourcing methods for generator fuel (priority contracts, etc.)	28%	82%	20%	40%	33%	35%
Review of stockpiles and sourcing and allocation methods for resources required for the "operations of operations units"	25%	36%	16%	20%	48%	41%
Review of stockpiles and sourcing and allocation methods for resources required for "system operations"	20%	27%	14%	0%	33%	35%
Change in fuel used by electric power generators (ex.: From heavy oil to combination of heavy oil and gas)	3%	18%	3%	0%	0%	0%
Others	10%	9%	8%	20%	11%	18%
No reviews performed	10%	9%	10%	20%	11%	6%

Which of the resources below required for operational continuity do you plan to review? (multiple responses)

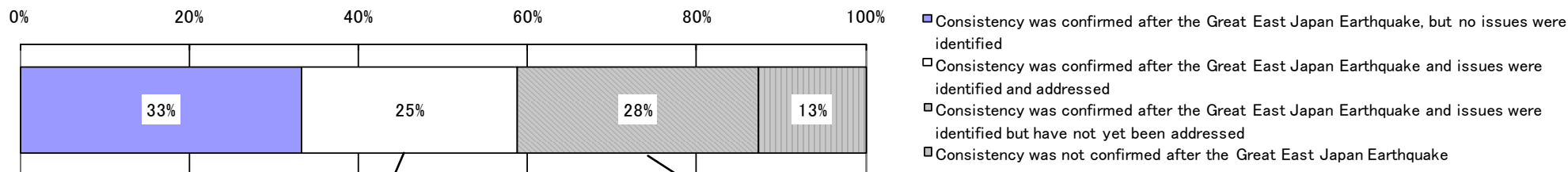
• Approximately 40% responded that plans are in place for reviews in the areas of "expansion of means of communication," "expansion of locations with electric power generators installed," and "review of stockpiles and sourcing and allocation methods for resources required to sustain the lives of staff members."



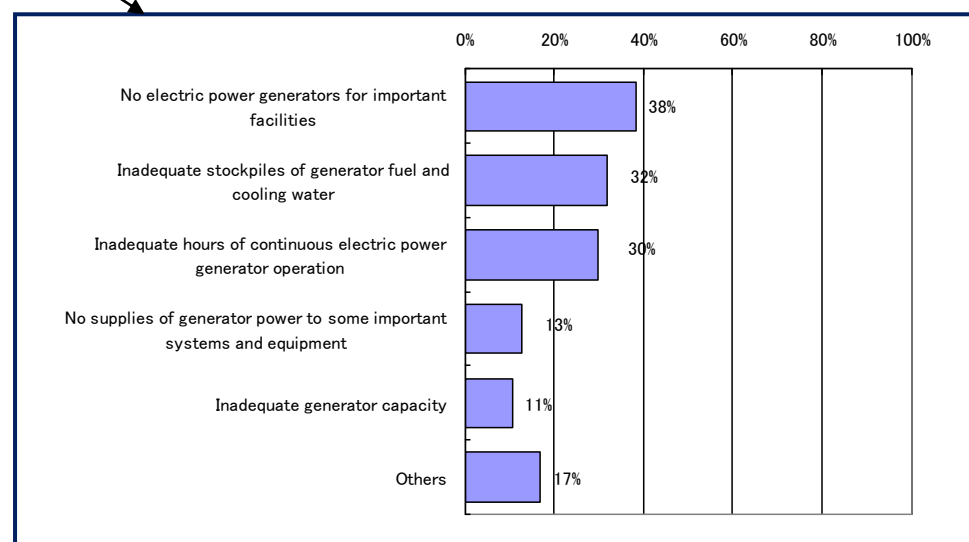
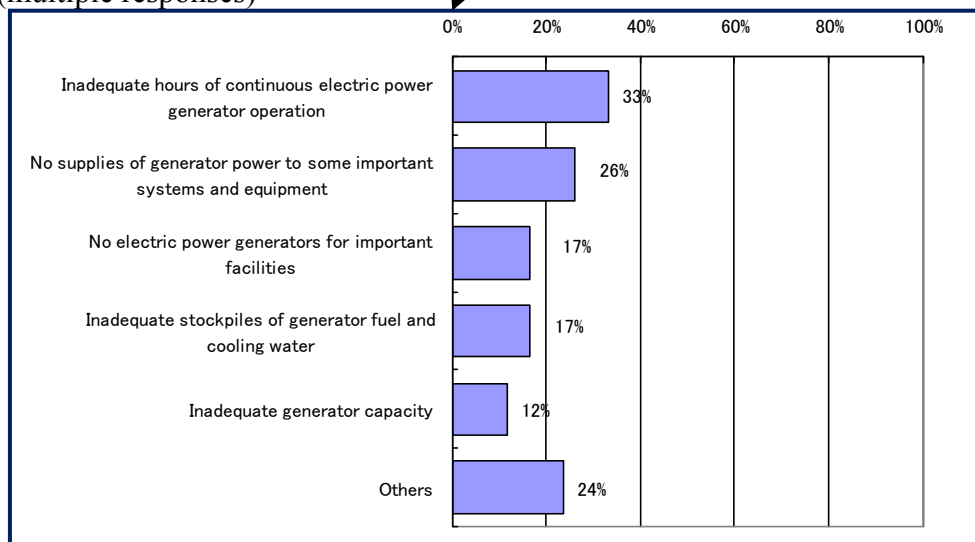
	Overall	Major banks	Regional banks	Japanese securities firms	Foreign banks and foreign securities firms	Others
Expansion of means of communication (satellite telephones, satellite mobile telephones, MCA wireless, TV conferencing systems etc.)	42%	45%	50%	80%	11%	29%
Expansion of number of locations with electric power generators installed (head office, centers, business offices)	38%	36%	50%	20%	19%	6%
Review of stockpiles and sourcing and allocation methods for resources required to sustain the "lives of staff members"	37%	27%	44%	60%	19%	24%
Review of sourcing methods for generator fuel (priority contracts, etc.)	21%	27%	28%	20%	7%	0%
No reviews performed	21%	36%	10%	0%	48%	41%
Review of stockpiles and sourcing and allocation methods for resources required for the "operations of operations units"	16%	9%	20%	0%	11%	12%
Review of stockpiles and sourcing and allocation methods for resources required for "system operations"	11%	9%	13%	0%	7%	6%
Change in fuel used by electric power generators (ex.: From heavy oil to combination of heavy oil and gas)	3%	9%	4%	0%	0%	0%
Others	5%	0%	4%	20%	11%	0%

Which of the following apply to consistency between the operational requirements of your electric power generators (facilities and systems supplied with electric power, hours of continuous operation and other constraints, stockpiles of fuel and cooling water, etc.) and your business continuity plan?

- Overall, 60% responded that consistency had been assured between the operational requirements of their electric power generators and their business continuity plans. The remaining 40% either have not confirmed consistency or have issues that have not yet been addressed.
- 30% of institutions responding that "issues were identified and addressed" specifically identified "inadequate hours of continuous electric power generator operation" and "no supplies of generator power to some important systems and equipment."
- 30% of institutions responding "issues were identified but not yet addressed" specifically identified "no electric power generators for important facilities," "inadequate stockpiles of generator fuel and cooling water," and "inadequate hours of continuous electric power generator operation."



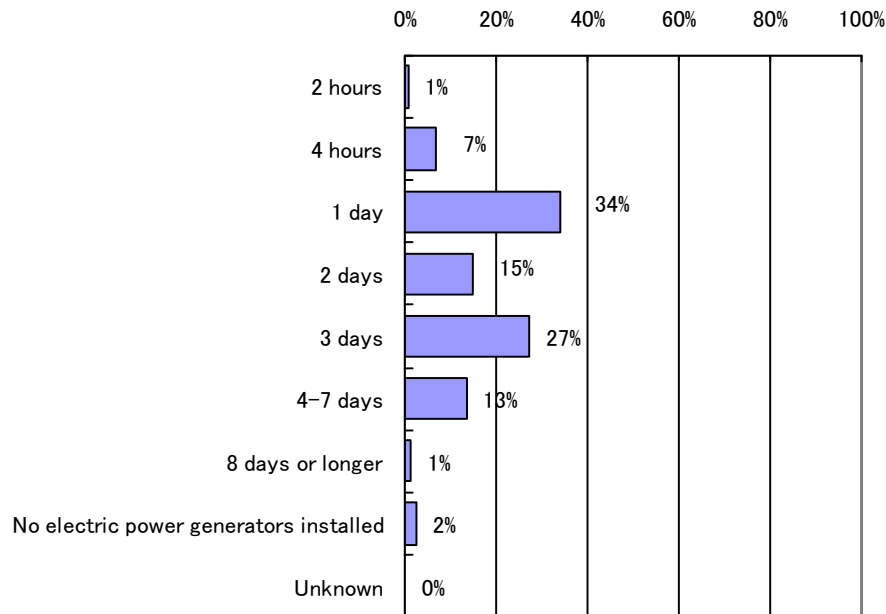
(For institutions responding "consistency was confirmed after the Great East Japan Earthquake and issues were identified and addressed" and "consistency was confirmed after the Great East Japan Earthquake and issues were identified but have not yet been addressed") Which of the following issues did you identify? (multiple responses)



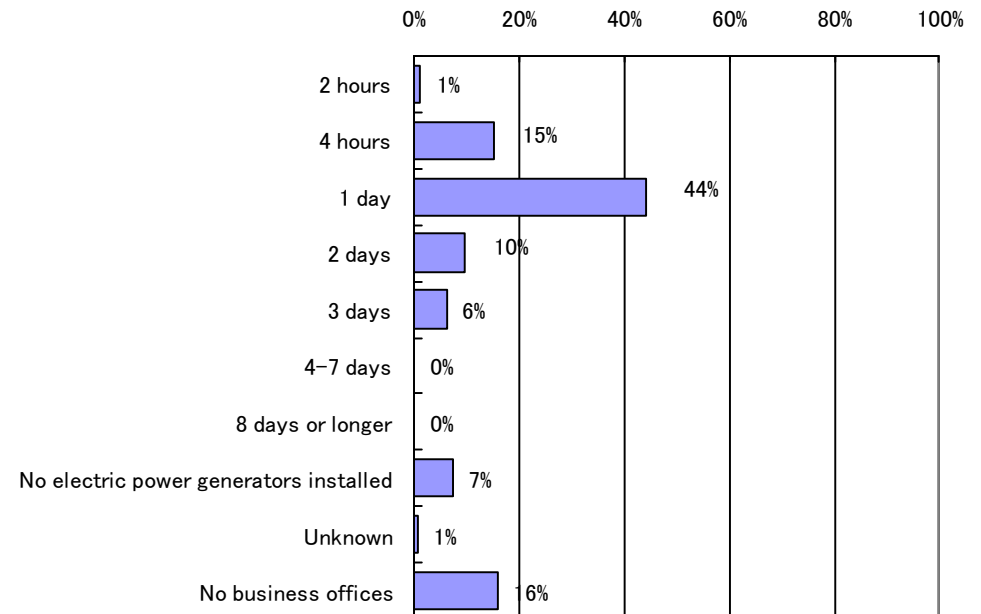
Describe your stockpiles of generator fuel.

- Roughly 40% responded that they had stockpiles of generator fuel for at least 3 days for their head offices, indicating that more than half do not have 3 days' supply.
- Just under half responded that they had stockpiles for 1 day for important business offices.

[Head office]

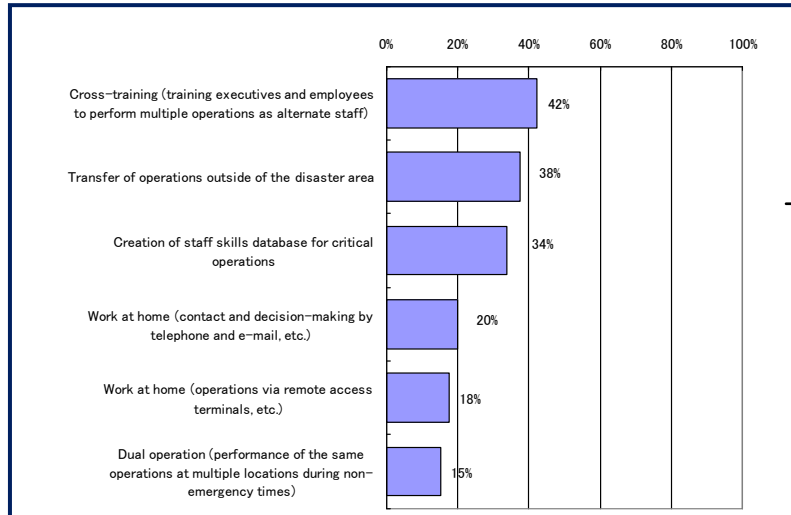


[Important business offices]

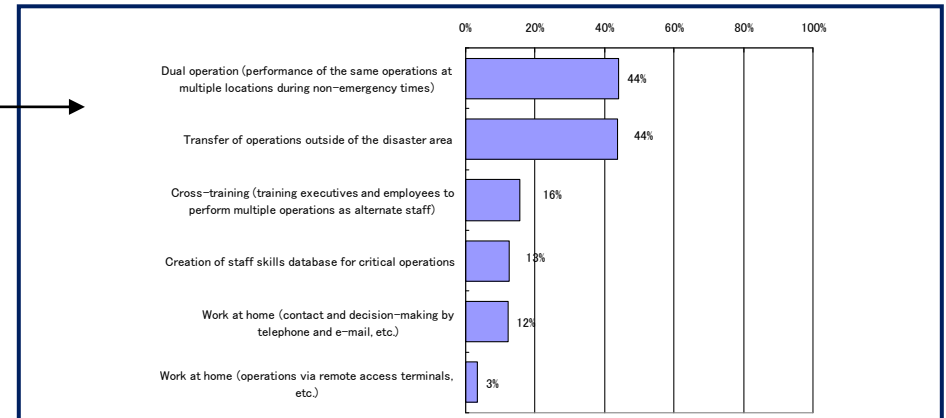


Which of the following have you introduced as means of ensuring continuity of "critical operations," primarily in the event of earthquake? (multiple responses)

• A relatively large number identified "cross-training," "transfer of operations outside of the disaster area," and "creation of staff skills database for critical operations" as "means of ensuring continuity for critical operations" already in place at the current point in time. Among them, a relatively large number responded that "dual operation" and "transfer of operations outside of the disaster area" had been introduced since the Great East Japan Earthquake.

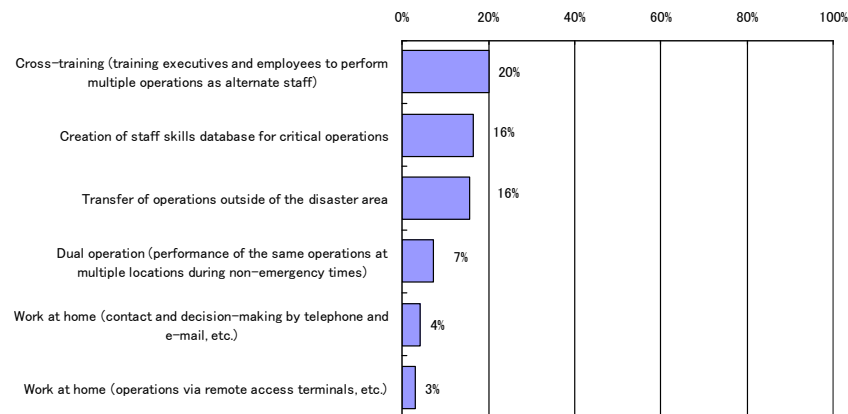


Which of the means identified in the question above were introduced after the Great East Japan Earthquake? (multiple responses)



Which of the following means of ensuring continuity of "critical operations," primarily in the event of earthquake, do you plan to introduce? (multiple responses)

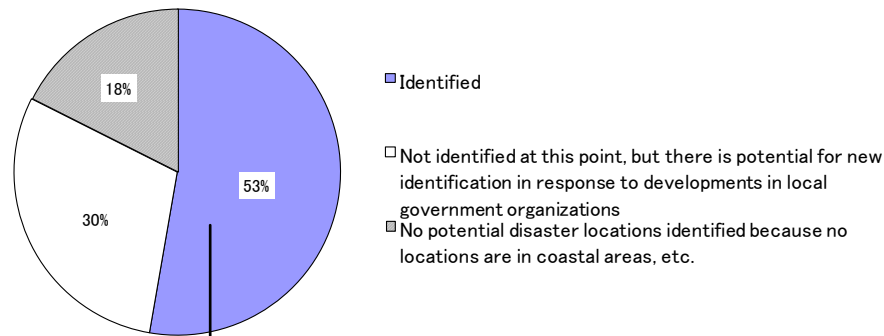
• 20% identified "cross-training," "creation of staff skills database for critical operations," and "transfer of operations outside of the disaster area" as "means of ensuring continuity of critical operations" that they planned to introduce.



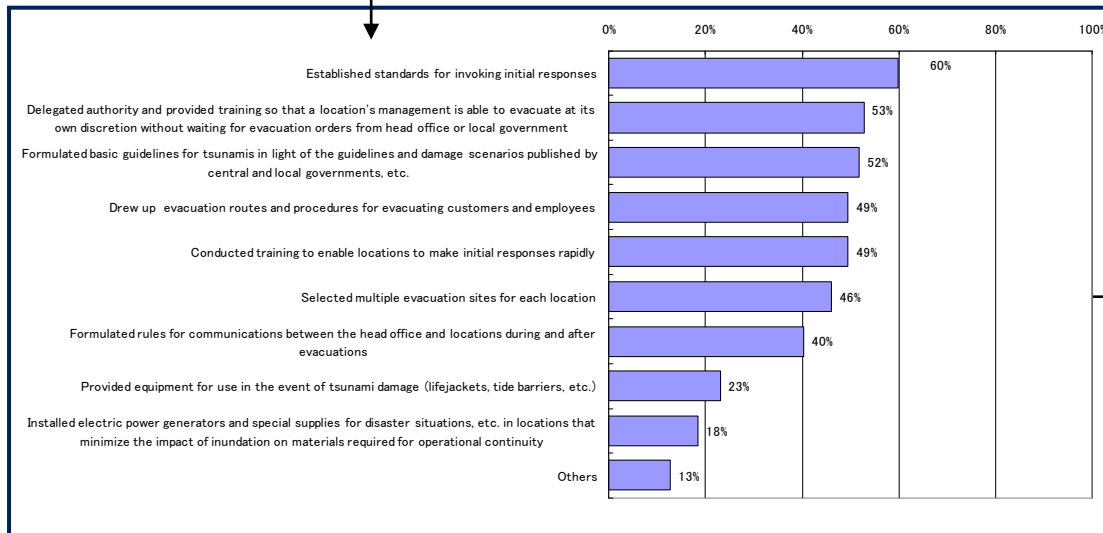
(2) Tsunami response

Have you identified locations potentially subject to tsunami disaster in light of the geographical conditions (altitude above sea level, distance from coastline, etc., location in publicly identified flood zone, etc.) of individual locations?

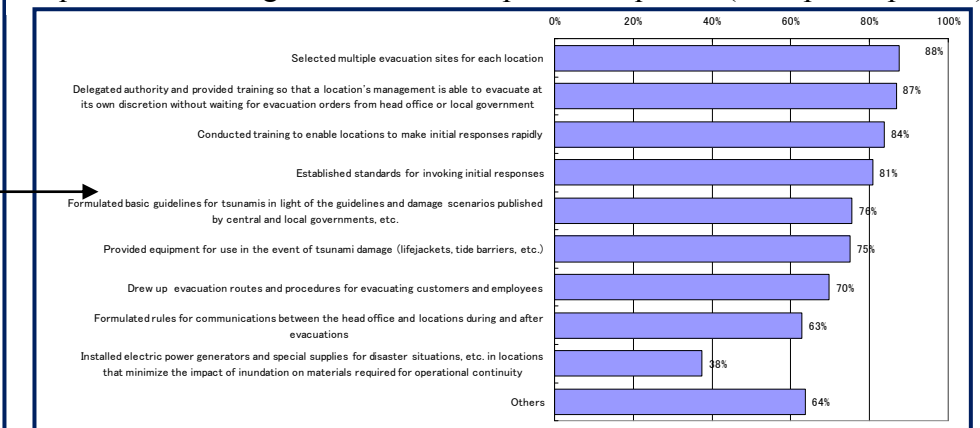
- Approximately half identified locations potentially subject to tsunami disaster in light of the geographical conditions of individual locations, and 30% responded "there is potential for new identification in response to developments in local government organizations."
- Approximately half of those responding that locations had been "identified" had "established standards for invoking initial responses," "delegated evacuation authority to individual location management," "formulated basic guidelines," "drawn up evacuation routes and procedures," or conducted "initial response training." More than 70% of those had taken these measures since the Great East Japan Earthquake.



(For institutions responding "identified" in the question above) Which of the following measures have you taken to respond to a tsunami? (multiple responses)



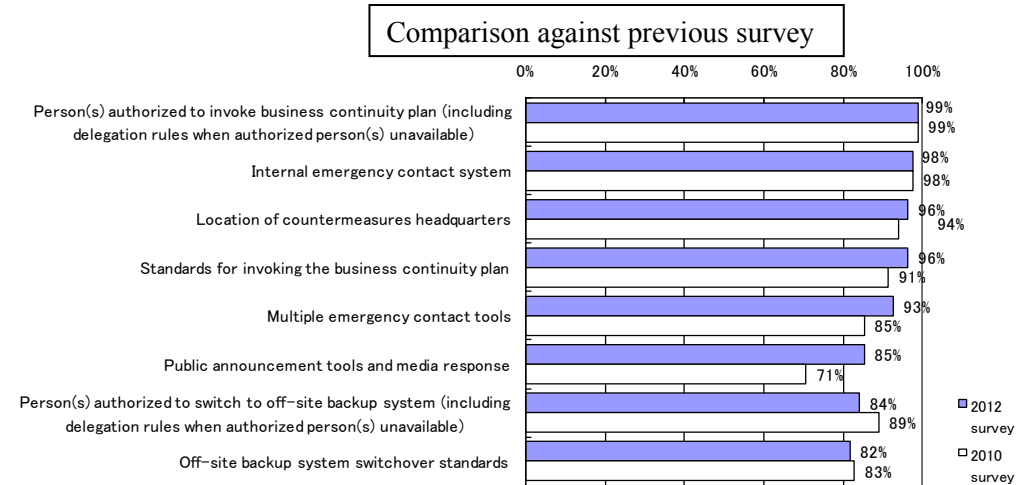
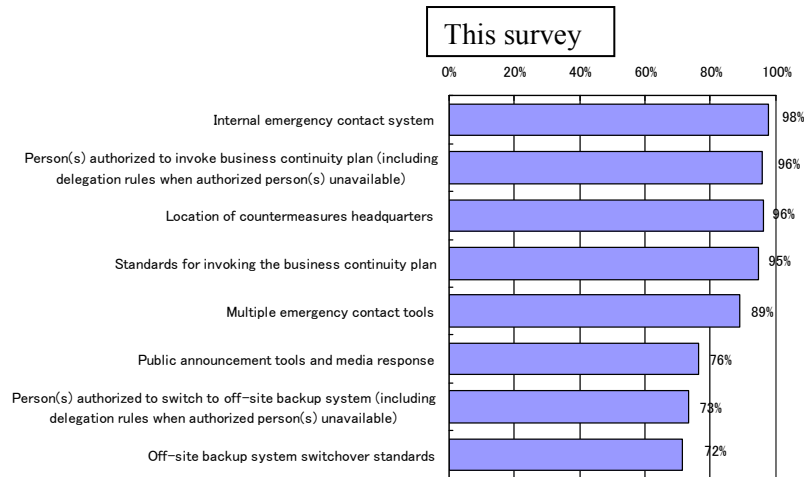
Which of the measures in the question above were introduced as tsunami responses following the Great East Japan Earthquake? (multiple responses)



5. Status of decision-making and communication systems

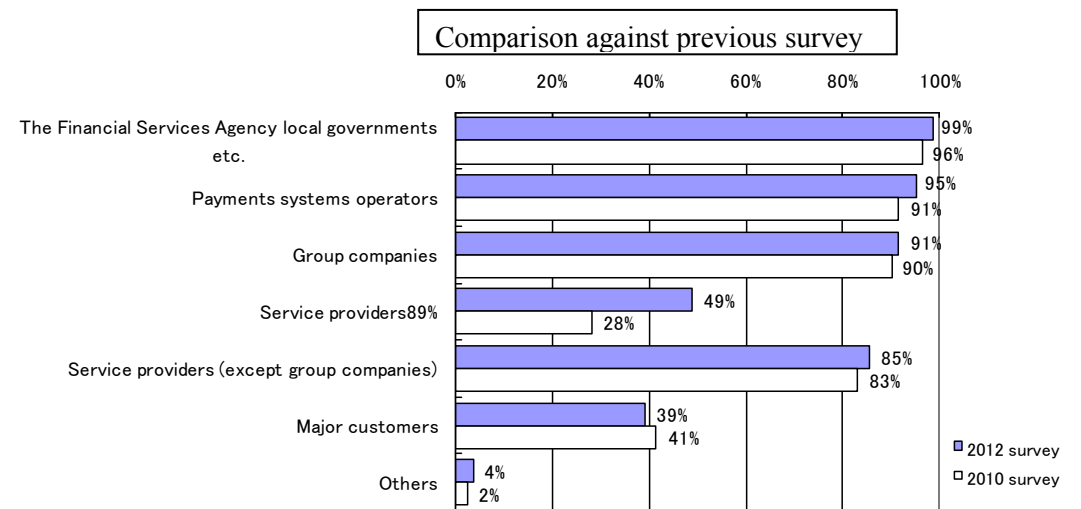
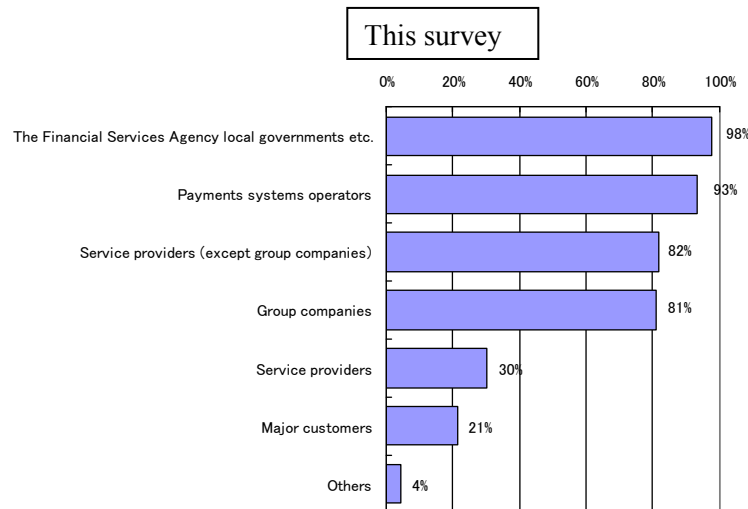
Which of the following are completed for business continuity plan invocation decision-making and communication systems? (multiple responses)

• Most respondents said that they had "generally completed" the decision-making and communication systems to be used when business continuity plans are invoked.



Among "important parties" outside of the institution, for which of the following have emergency contacts and contact information been identified? (multiple responses)

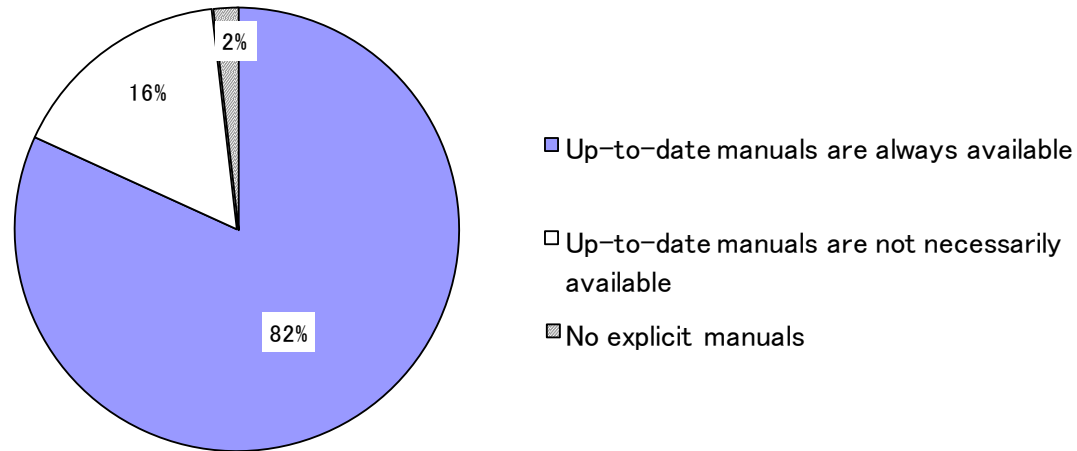
• More than 90% responded that they had identified contacts for "the Financial Services Agency, local governments, etc." and "payment systems operators (Japanese Bankers Association, Bank of Japan, etc.)," but approximately 20% had not identified contacts for "outside service providers (excluding group companies)" and "group companies."



6. Formulation of manuals

What is the upgrade and retention situation regarding manuals used for invocation of business continuity plans?

• More than 80% responded that "up-to-date manuals are always available."

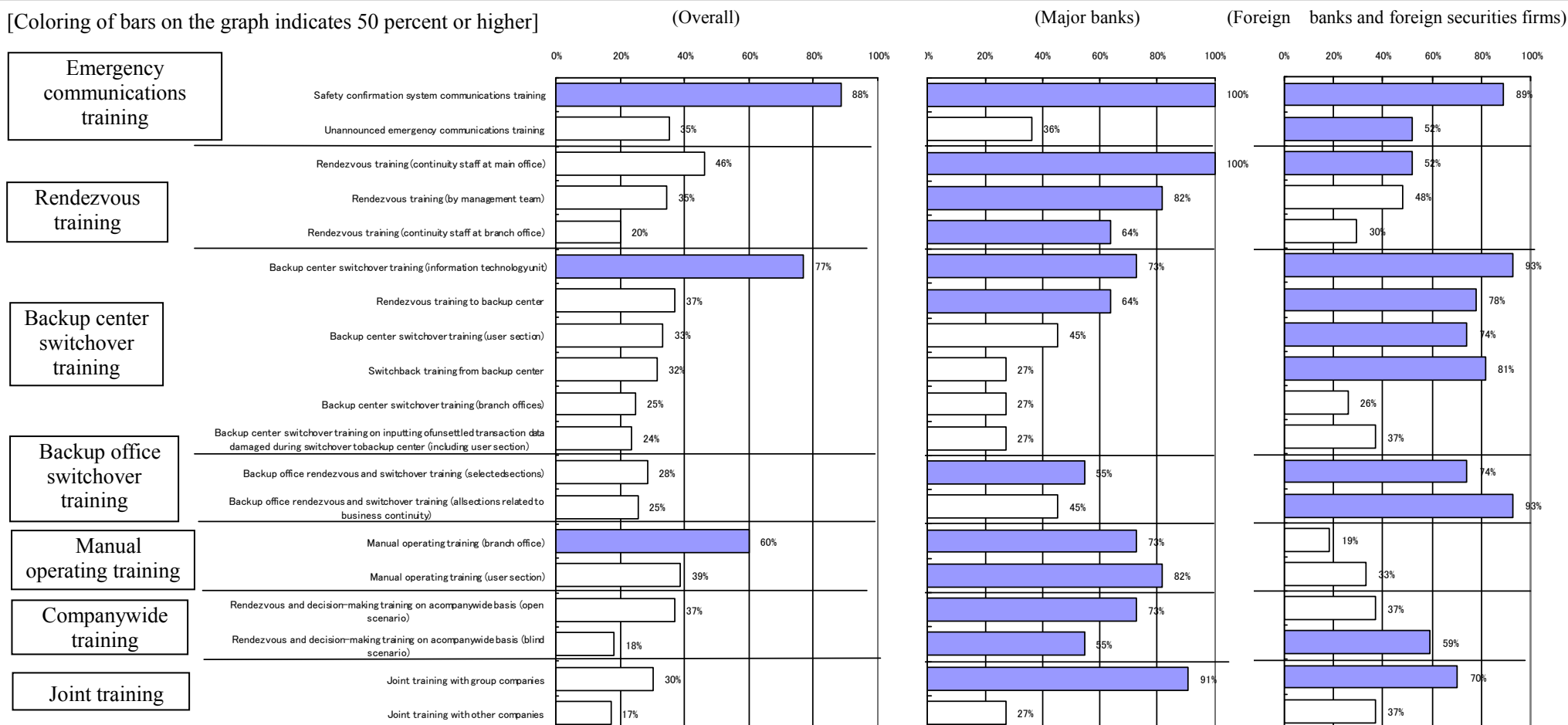


7. Training and review of plans

Which of the following forms of training have you conducted over the past 2 years? (multiple responses)

- All segments conduct a wide range of training. The most common responses were "safety confirmation system communications training," "backup center switchover training" by systems units, and "manual operations training" by business offices.
- By segment, all major banks have conducted "safety confirmation system communications training" and "rendezvous training" (head office emergency staff). More than 80% of respondents have conducted "rendezvous training (management team)," "manual operations training (operations units)," and "joint training with group companies."
- The percentage of foreign banks/foreign securities firms conducting "unannounced emergency communications training," "backup center switchover training," and "backup office switchover training" is higher than for other segments.
- The percentages of major banks and foreign banks/foreign securities firms conducting companywide training and joint training are higher than for other sectors.

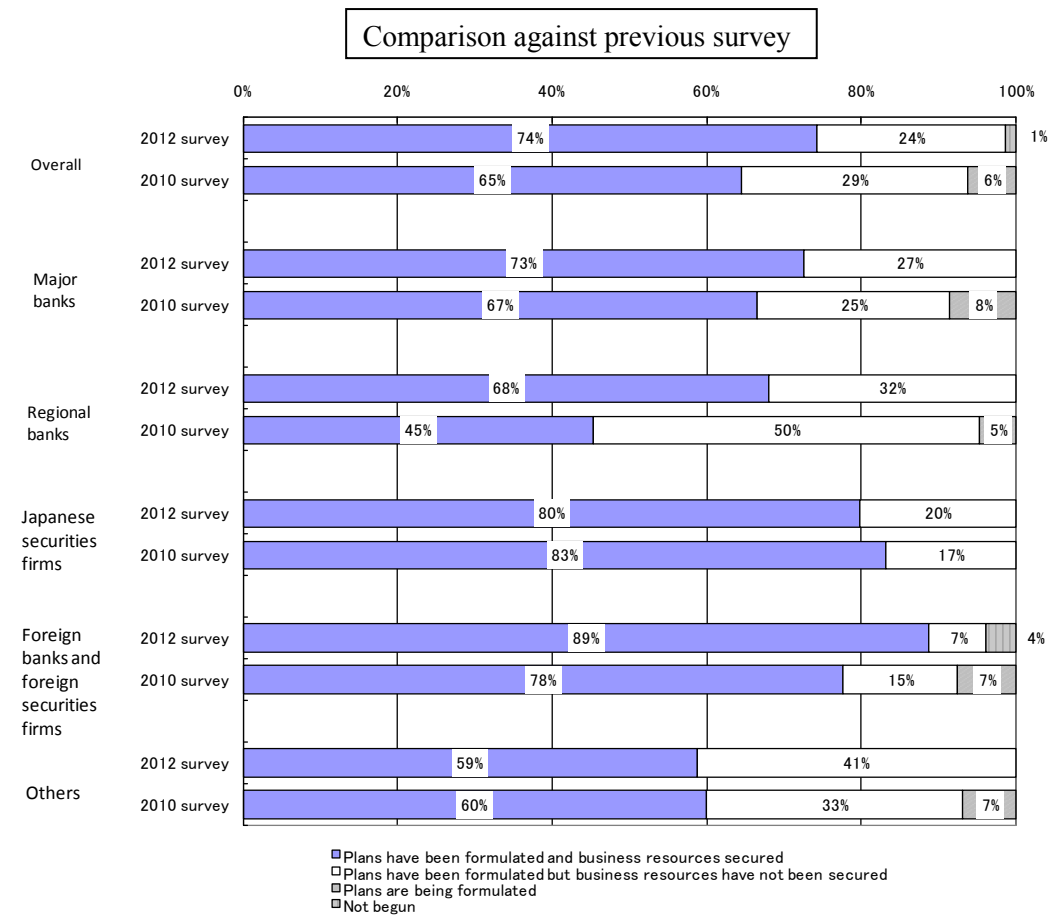
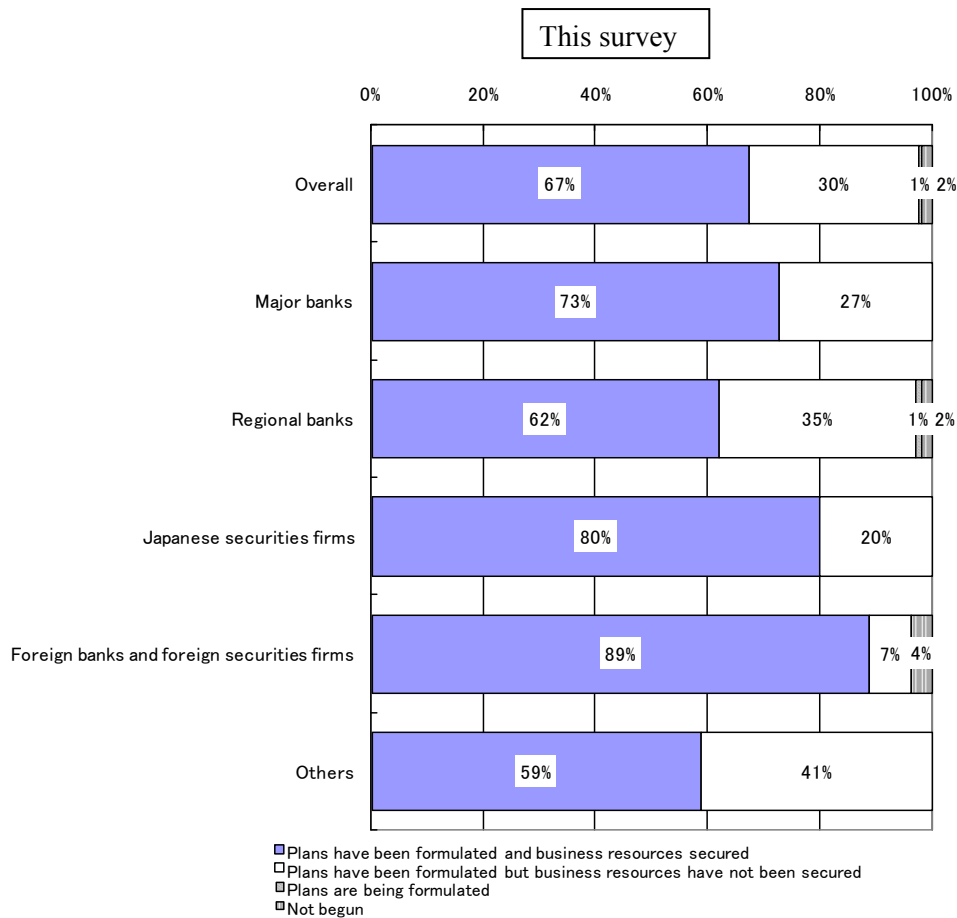
[Coloring of bars on the graph indicates 50 percent or higher]



8. Response to outbreaks of new strains of influenza¹ and other infectious diseases

Have you formulated business continuity plans that take into account "a certain period of time where staffing is short because of an outbreak of a new strain of influenza" in light of guidelines, etc. published by the government?

- Virtually all institutions responded that "plans have been formulated" to respond to new strains of influenza and other infectious diseases.
 - By segment, all major banks, domestic securities firms and others reported that "plans have been formulated."
- Compared to the previous survey, there was a significant increase in the percentage of regional banks responding "plans have been formulated and business resources are on hand."



¹ Highly pathogenic influenza. Increases companywide absentee rate to the point that operations are impacted and it is difficult to perform all operations normally.

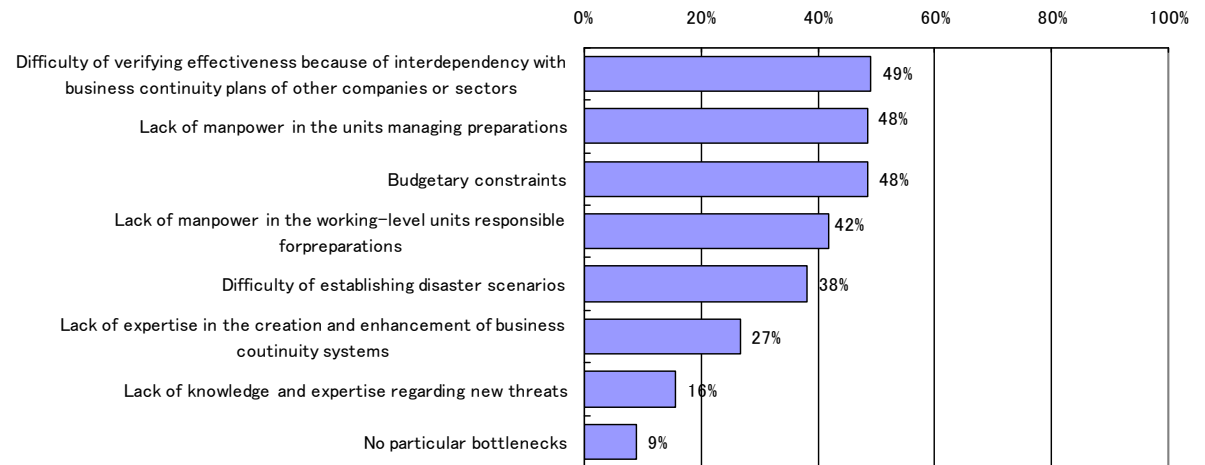
9. Future tasks

(1) Bottlenecks

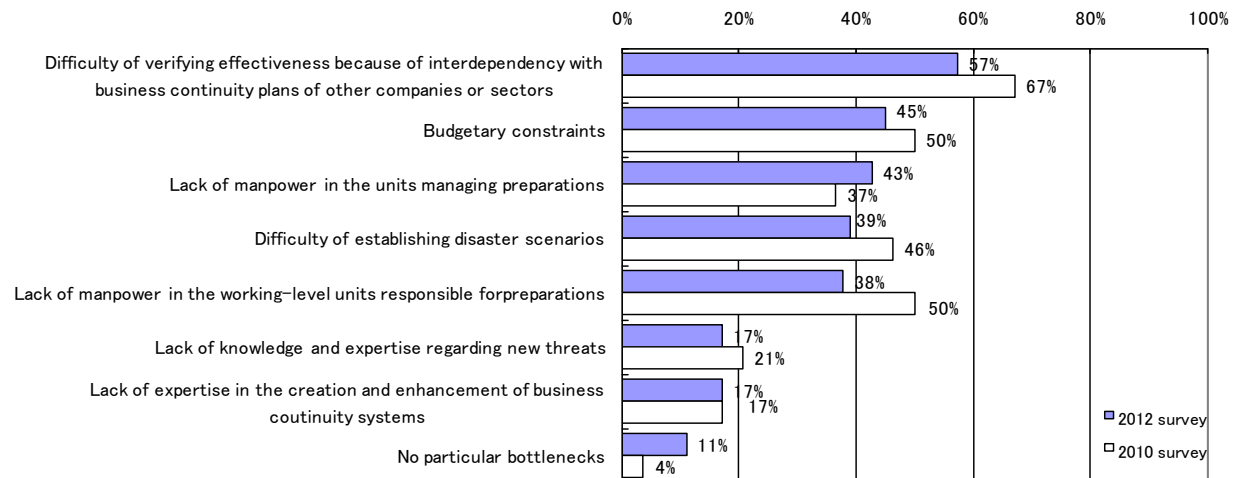
What are the bottlenecks to enhancement of business continuity management? (multiple responses)

- A significant number of institutions identified "difficulty of verifying effectiveness because of interdependency with business continuity plans of other companies or other sectors," "lack of manpower (and skills) in unit with central role in preparing business continuity" and "budgetary constraints" as bottlenecks to enhancement of systems.
- Compared to the previous survey, a larger percentage of institutions identified " lack of manpower in units tasked with enhancing systems" as a bottleneck to enhancement of systems.
 - For other items, the percentages identifying them as bottlenecks all declined.

This survey



Comparison against previous survey

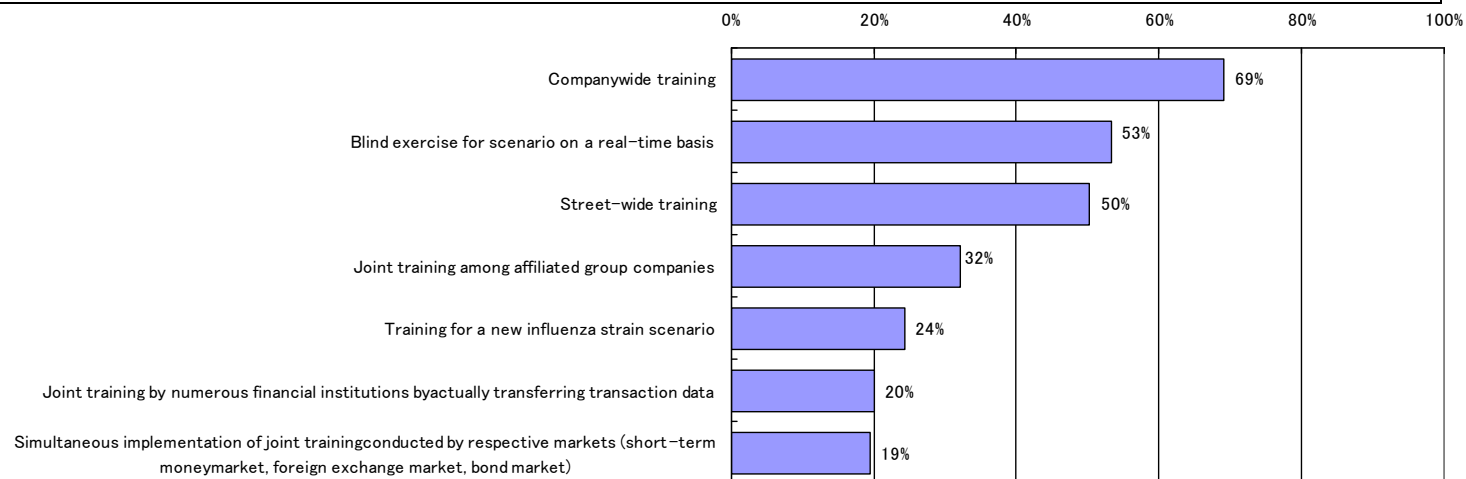


(2) Training to be enhanced

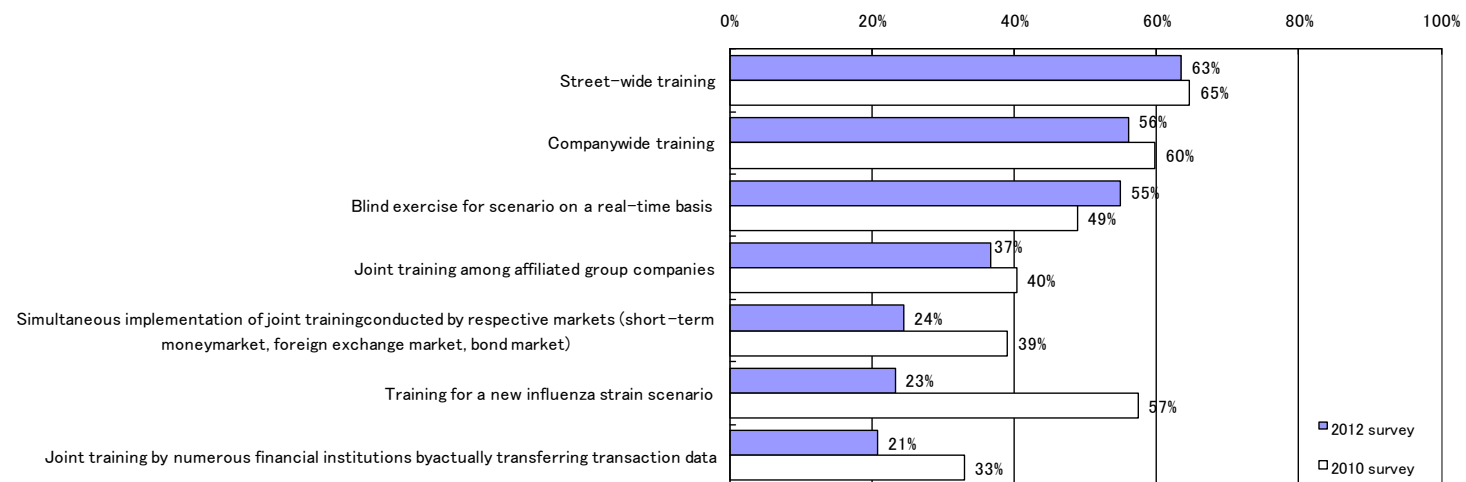
Which of the following forms of training do you consider it desirable to conduct or enhance going forward? (multiple responses)

• The most common forms of training identified as either to be conducted or requiring enhancement were "companywide training," "real-time, scenario-blind training" and "Street-wide training"².

This survey



Comparison against previous survey



² Street-wide training differs from other forms of training in three important respects: (1) establishment of a common disaster scenario for the industry, (2) simulation of disaster response by individual companies under the common scenario, and (3) collection of results and identification of problems to facilitate desktop training that encourages enhancement of business continuity management systems at industry level ("Outline of Street-wide Training Practices in Foreign Countries", published by the Bank of Japan, March 2010).

(Reference)

【Central payment and settlement institutions, etc.】

- All four of the central payment and settlement institutions, etc. responded that their business continuity systems were "completed and regularly reviewed," and most had reviewed their business continuity systems in light of the experiences of the Great East Japan Earthquake. In terms of disaster timing, all assumed timings of "weekdays during daytime (business) hours," "holidays," "weekdays during nighttime (non-business) hours," and "weekdays during the early morning (pre-business) hours" when formulating and enhancing business continuity systems.
- Nonetheless, issues remain with respect to effectiveness. A considerable number of institutions responded that there were inadequacies in "provision of staff," "off-site backup systems" and "off-site backup system switchover procedures," and none had appointed a person with exclusive responsibility for formulating and enhancing business continuity management. All institutions identified "budgetary constraints" as a bottleneck to further enhancement. Only one institution assumed infectious diseases (outbreak of new strain of influenza, etc.) among causes and events in disaster scenarios.
- Regarding training, institutions reported holding regular training programs at least once a year for payment and settlement services (funds settlement, securities payment and settlement, etc.). Institutions conducted more backup center-related training than other segments over the past two years, including "backup center switchover training (systems units, operations units)," "(transfer) rendezvous training to backup center" and "switch back training from backup center."

【Further enhancements to business continuity systems】

- General progress on preparedness of business continuity management from the levels of the previous survey was confirmed. However, the survey identified the following as clear issues, and it is expected that further initiatives will be taken to enhance business continuity management and improve their effectiveness.
- First, only one-quarter of institutions responded that "effectiveness is assured" for their business continuity management systems. Among those responding that assurance of effectiveness was inadequate, approximately half identified "provision of staff" and "verification in companywide training" as issues. With respect to provision of staff, only about 20% of institutions had confirmed ability to assemble. Among the tasks going forward will be estimation and identification of staffing numbers required and implementation of rendezvous training to improve the effectiveness of business continuity staff. With respect to verification in companywide training, it would be desirable for institutions to verify their business continuity systems while learning and practicing emergency clerical processing flows by conducting mutual verifications of the consistency of business continuity plans with important parties, and through company-wide training and joint training with affiliates.
- Only about 60% of institutions assume "suspensions of public infrastructure services" in their disaster scenarios, and only about 50% assume rolling blackouts. It would be desirable to include suspensions of public infrastructure services such as power outages among assumptions in light of the experiences from the Great East Japan Earthquake, which indicate that power outages, etc. could take place over a much broader area than just the disaster zone. In this regard, there are also issues regarding consistency between the operational conditions of electric power generators and business continuity plans, which 40% have either not confirmed or report "inadequate hours of continuous electric power generator operation," "no electric power generators for important facilities," or "inadequate stockpiles of generator fuel and cooling water." Institutions should have systems in place that enable critical operations to continue even during power outages.
- Roughly 20% had not identified emergency contacts and contact information for "outside service providers (excluding group companies)" and "group companies" among "important parties" outside of the institution. It is desirable that institutions identify contacts for important outside parties and enhance their communication systems when business continuity plans are invoked.
- Additionally, "lack of manpower (and skill) in units with central roles in preparing business continuity plans," "budgetary constraints" and "difficulty of verifying effectiveness because of interdependency with business continuity plans of other companies or other sectors" were identified by a significant number of institutions as bottlenecks to enhancement of systems. It is expected that the organizations tasked with enhancing business continuity systems will be expanded and improved with the involvement of the management team, that limited budget resources will be effectively used, and that the issues identified above will be addressed so as to create effective business continuity plans. It is also expected that the effectiveness of these plans will be verified in Street-wide training and other exercises that focus on interdependency with other companies and other sectors.