

APPENDIX

Table 1

KOBE CITY FIRE DEPARTMENT Record of Fire Fighting Operations in the Kobe Area January 17, 1995

Operations

- 5:46 Earthquake occurred; almost all of the 119 emergency lines were occupied; emergency summons issued to personnel.
- 5:53 First fire report and three others followed; at least 60 fires were burning simultaneously.
- 6:15 Chief, Fire Department arrived at Kita Suma branch office, called the control center, and received reports of the disaster situation and rescue operations.
- 6:25 Chief, Fire Department left Kita Suma branch office for the Fire Department. On the way, he observed the disaster situation.
- 6:40 Fire Chief ordered a pump truck team at Tarumizu Fire Station sent to the Nagata area.
- 6:50 Center control room was established; Mayor arrived at control room.
- 7:00 Kobe City Disaster Operations Center was established.
- 7:10 Chief, Fire Department arrived at the Operations Center; vice head, Operations Center tried to call prefecture to report disaster, but could not get through.
- 7:20 Chief ordered two pump truck teams at Kita Fire Station sent to Hyogo area.
- 7:30 Chief, Operations Center reported disaster and prevention activities to mayor.
- 8:00 Chief ordered a pump truck team at Tarumizu Fire Station sent to Nagata area.
- 8:30 Chief ordered a pump truck team at Kita Fire Station sent to Nagata area.
- 9:05 Vice Chief, Operations Center briefed prefectural government on the disaster.
- 9:20 Operations Chief ordered a Fire Defense Mobile Unit helicopter to gather information on status of disaster in the entire city.
- 9:30 Chiefs of Fire Departments of Kyoto City and Osaka City offered support. Asked the prefectural government for the possible mobilization of Self Defense Force (Planning Adjustment Department).
- 9:40 Received a report from the Fire Defense Mobile Unit helicopter. At least 20 additional fires were reported, and building collapses were observed all over the city, especially in the eastern part.
- 9:50 Chief, Fire Department advised the mayor to request a wide area fire fighting support and mobilization of Self Defense Force; suggested that Fire Departments deal with fires and Police and Self Defense Force carry out rescue operations. The mayor requested the governor of Hyogo Prefecture to send wide area fire fighting support.

10:00 Mayor of Kobe requested the governor of Hyogo Prefecture to mobilize the Self Defense Force. The Minister of Fire Defense Agency, the Ministry of Home Affairs accepted the request. The Governor of Hyogo Prefecture reported that relevant governors had received the order.

Source: "Hanshin - Awaji Daishinsai (Kobe Shiiki) ni okeru Shobokatsudo no Kiroku", Kobe City Fire Department, Kobe, Japan, March, 1995.

Table 1, continued

**HYOGO PREFECTURE
Fire Fighting Operations in the Kobe Area
January 17, 1995**

Operations Control

- 9:20: Helicopters of Kobe Fire Department were activated, and officials gave a disaster report to the Operations Center by radio; operations were delayed due to liquefaction at heliport. In the afternoon, the Fire Defense heliport was moved to Hiyodori Dai.
- 9:50: Governor of Hyogo Prefecture receives request from Mayor of Kobe for wide area fire fighting support
- 10:00: Governor of Hyogo Prefecture receives request from Mayor of Kobe for mobilization of Self Defense Force. from National Fire Defense Agency in Tokyo.
- 10:01: Governor of Hyogo Prefecture requests wide area fire fighting support and mobilization of Self Defense Force from National Fire Defense Agency in Tokyo.
- 10:30: Disaster Prevention Center organized seven special teams to carry out mission, with 6 personnel to a team. The first medium team (three small teams, 18 personnel) was mobilized in Nagata area. It carried out fire fighting and rescue operations, securing water from fire fighting ships, etc.
- 11:10: Fire brigades from Mita City (north of Kobe) arrived at Nagata-ku.
- 13:15: Self Defense Force, the Third Division, Himeji Special Regiment arrived with 216 members.
- 13:40: Ten fire fighting teams from Osaka City arrived. Thereafter, fire brigades arrived one after another. Tokyo Fire Defense Agency, Nagoya City Fire Department, and Hiroshima City Fire Department responded with support teams. Yokohama City Fire Department, Kawasaki City Fire Department, Kyoto City Fire Department sent helicopters.
- 24:00: Reinforcements arrived: 182 pump truck teams with 860 personnel, 9 helicopters with 52 personnel, and 2562 Self Defense Force members to assist in fire fighting operations.

Source: Summary of Fire Defense Operations, Hyogo Prefecture, "Hanshin - Awaji Daishinsai (Kobe Shiiki) ni okeru Shob-okatsudo no Kiroku". Kobe City Fire Department, Kobe, Japan, March, 1995.

Table 1, continued

NATIONAL FIRE DEFENSE AGENCY, TOKYO
Summary of Fire Fighting Operations,
January 17, 1995

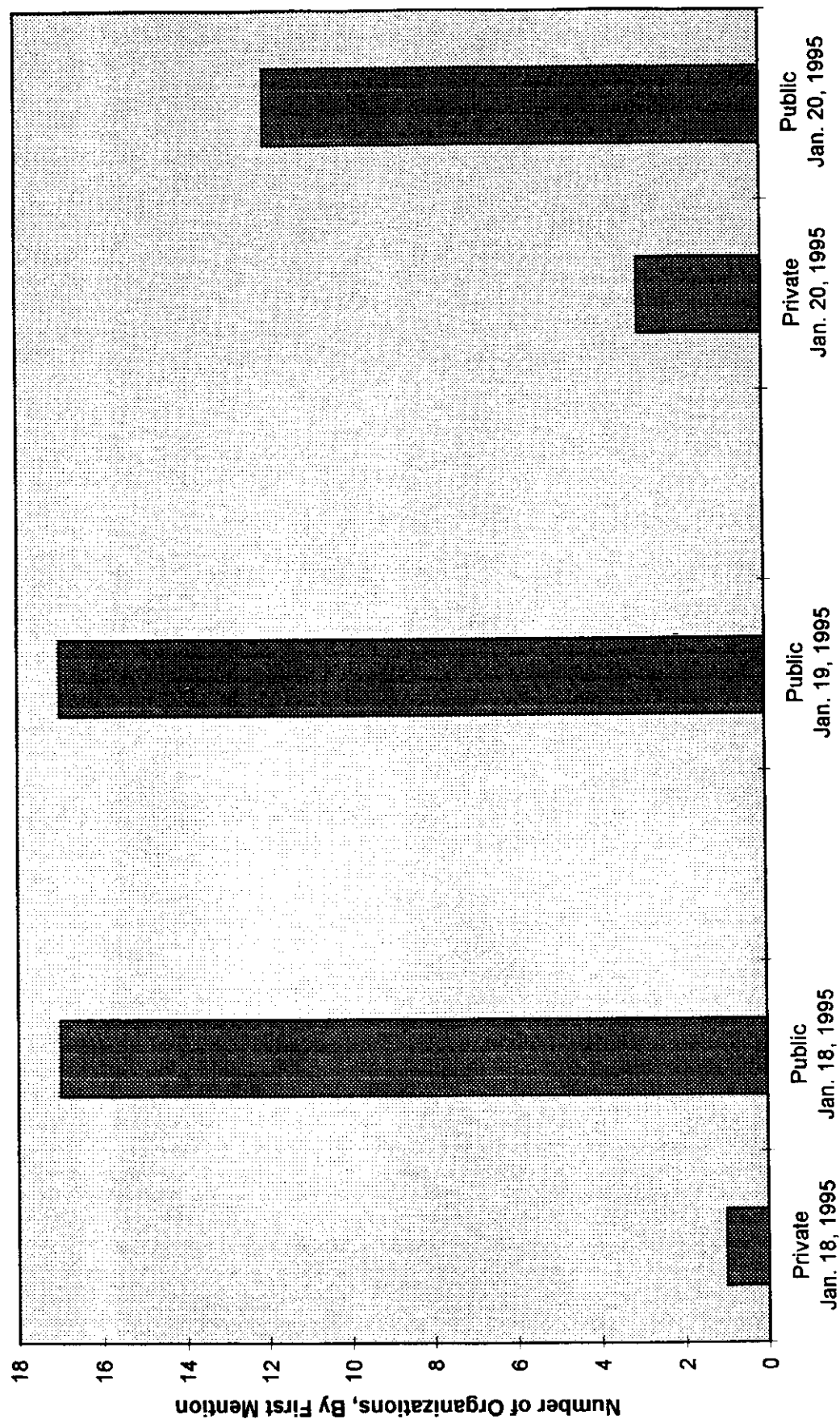
Director's Report:

- 6:30: Awakened at home at usual time; turned on television; learned of earthquake from news report. Did not receive any calls; planned to go to office at usual time, 9:30 a.m.
- 7:30: At breakfast, watched the news, saw the photos of the shinkansen collapse. Realized that the earthquake was serious; but did not know scale of damage.
- 8:40: Arrived at office, earlier than usual. No communications were available between Tokyo and Kobe. Telephones were out. Tokyo Fire Department called to ask the status of Kobe. Without knowing the damage, they were preparing a support team and two helicopters to send to Kobe. In Fire Department, protocol is not to send assistance unless requested.
- 9:00: Established communication with Kobe; established a support team.
- 10:01: First report from Kobe -- they requested support -- request came from Kobe City Mayor through the governor of Hyogo Prefecture via telephone
- 10:02: Called Fire Defense Agencies that had helicopters, e.g. Hiroshima; there are 12 Fire Defense Agencies with helicopters; some helicopters couldn't fly, they under inspection. Mobilized response to Kobe.

Source: Interview, Director, Ambulance and Rescue Service Division, Fire Defense Agency, Ministry of Home Affairs, Tokyo 100, Japan. Tuesday, May 16, 1995.

Figure 1

Organizational Disaster Response, January 18-20, 1995



Type of Organization, Based on Content Analysis from The Japan Times

Figure 1, continued

Organizational Disaster Response, January 21-22, 1995

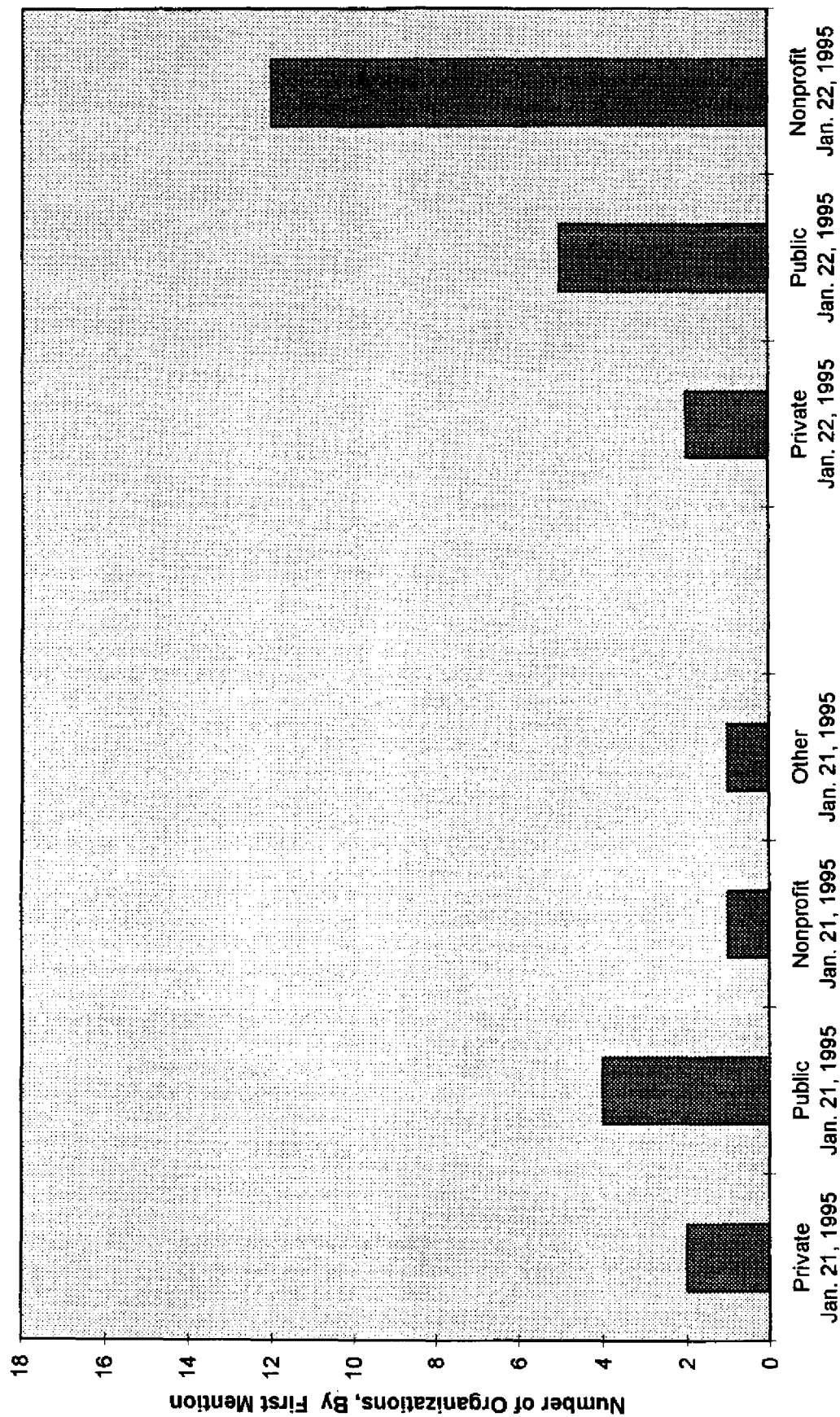


Figure 2

Organizational Response of Public Institutions, January 18-20, 1995

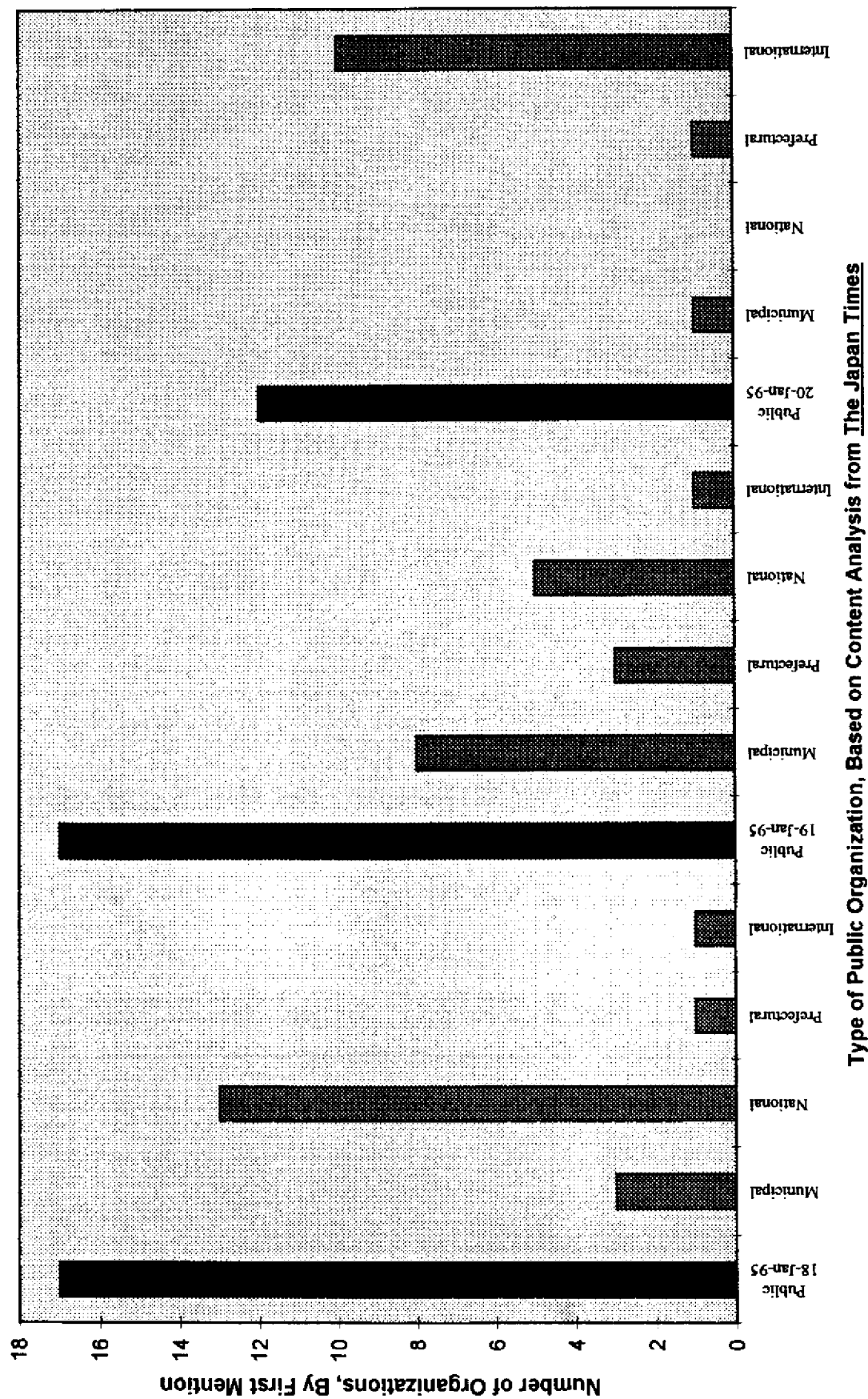
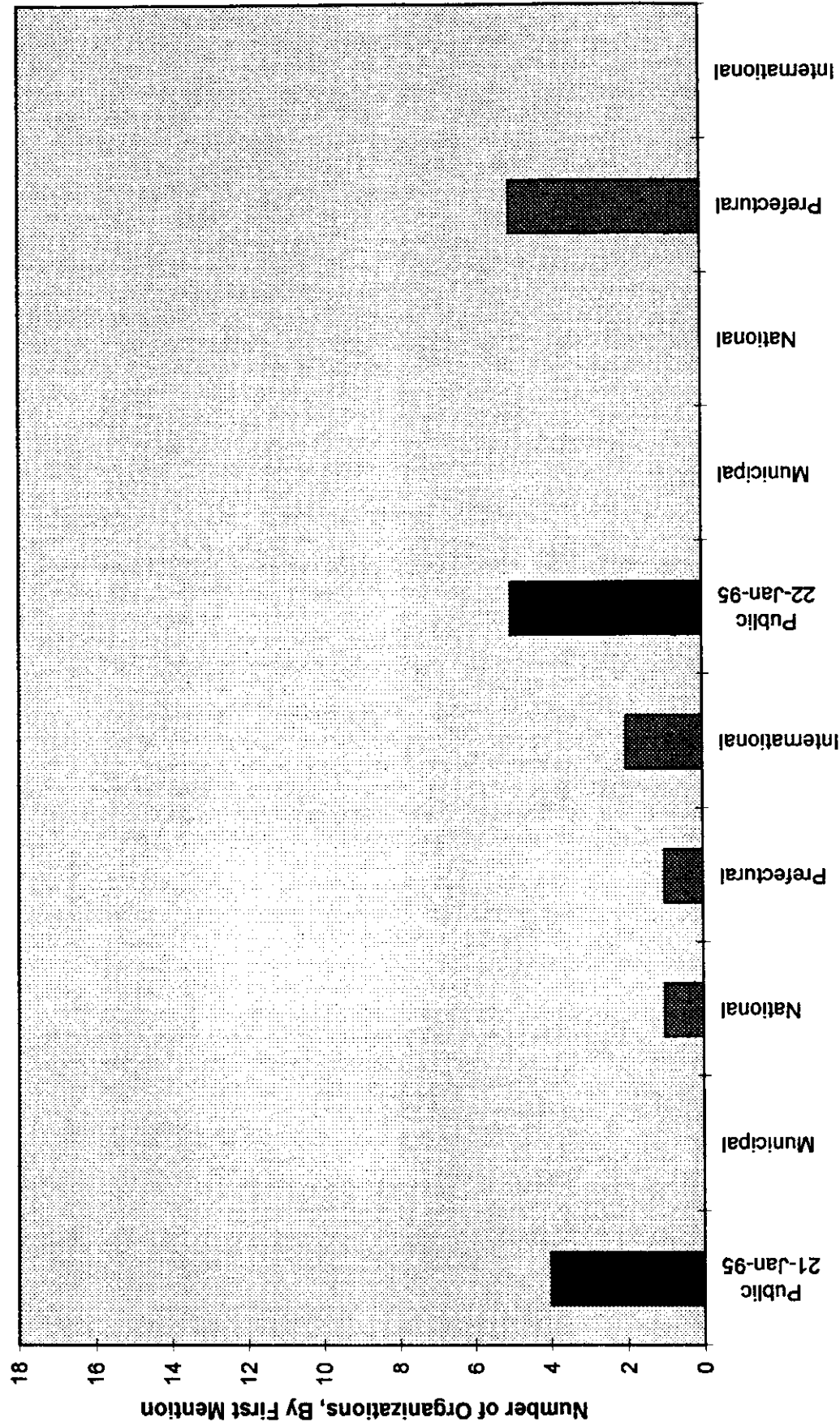


Figure 2, continued

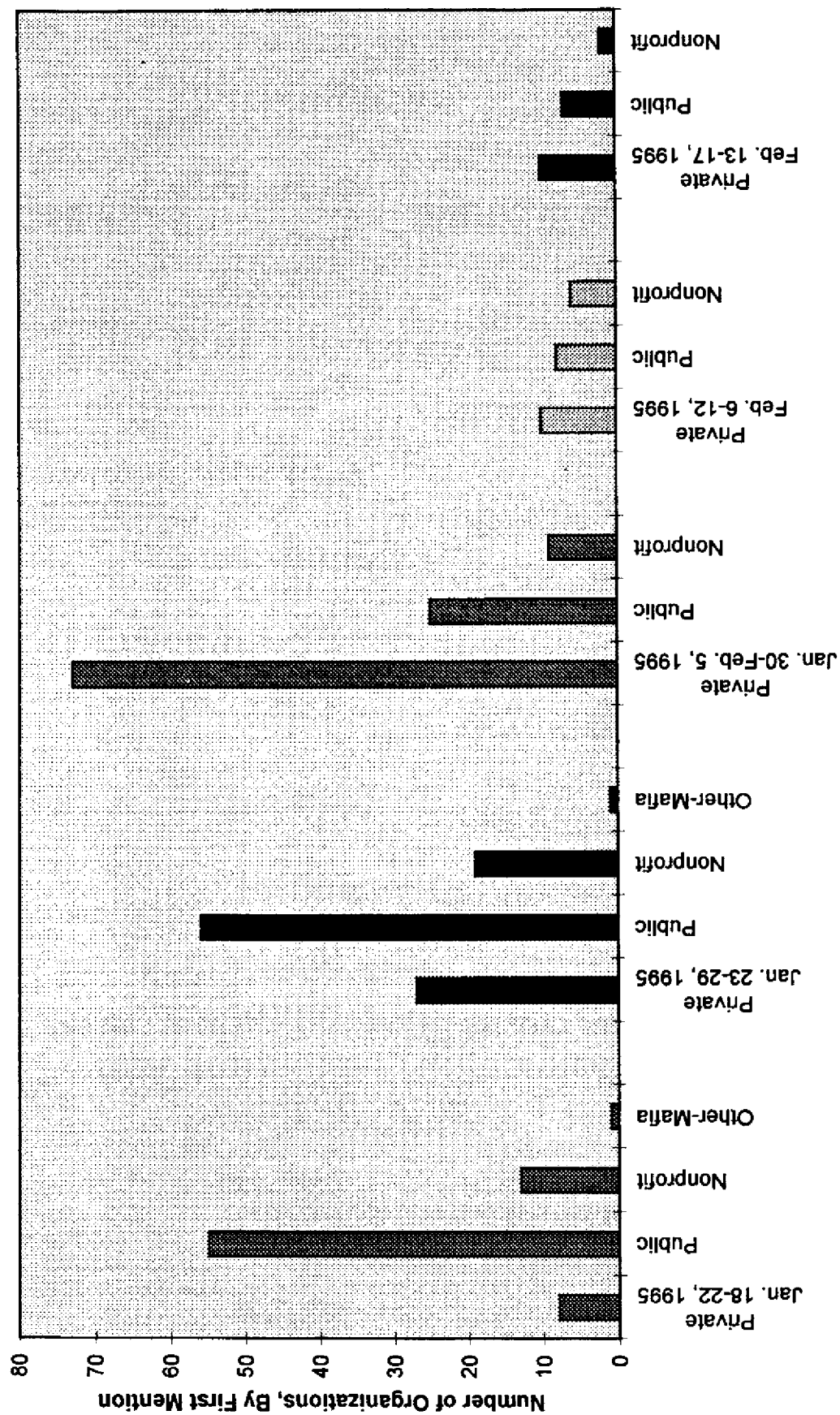
Organizational Response of Public Institutions, January 21-22, 1995



Type of Public Organization, Based on Content Analysis from The Japan Times

Figure 3

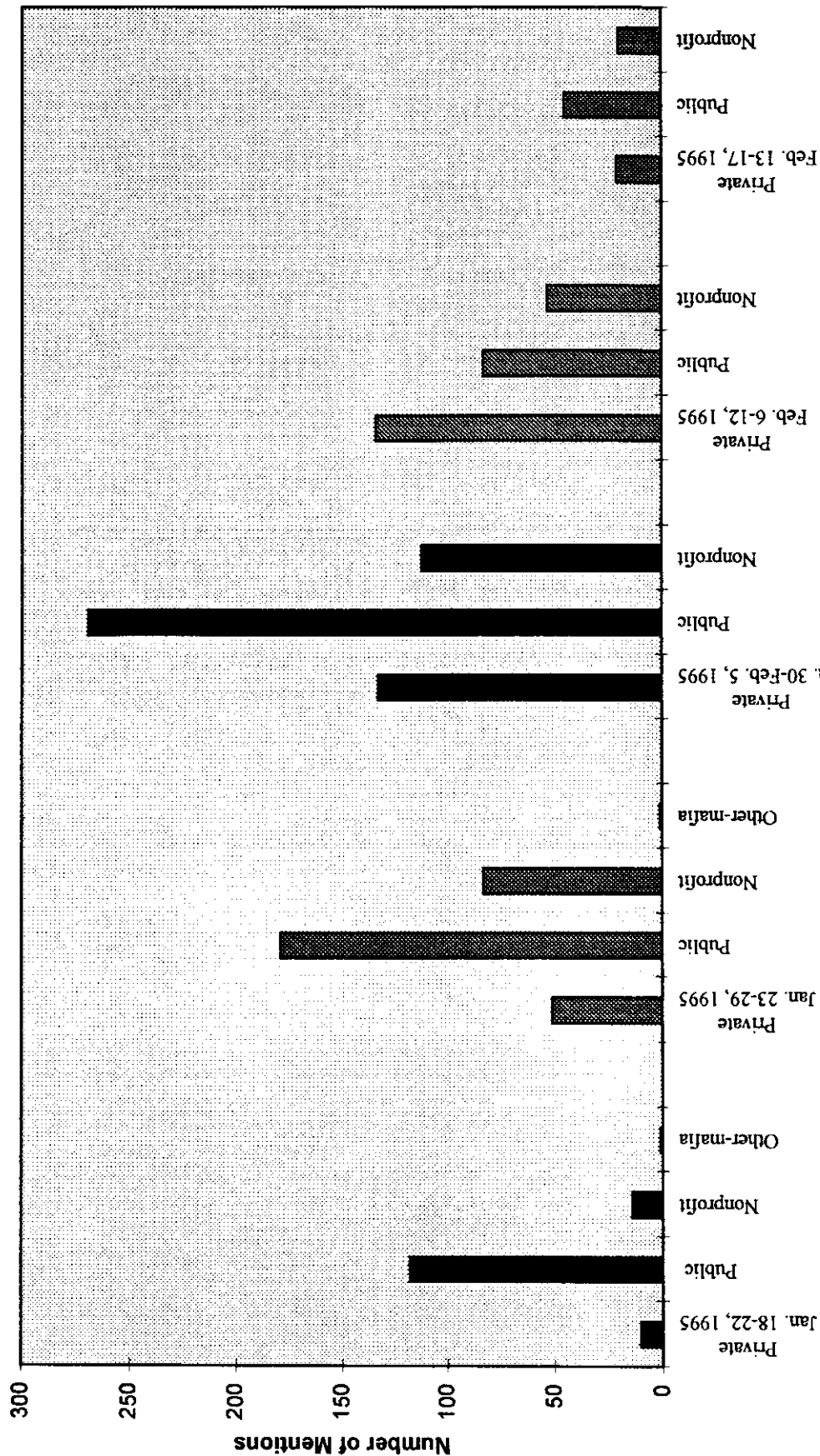
Organizational Disaster Response, By First Mention,
January 18-February 17, 1995



Type of Organization, Based on Content Analysis from The Japan Times

Figure 4

Organizational Disaster Response System, By Frequency of Mention,
January 18-February 17, 1995



Type of Organization, Based on Content Analysis from The Japan Times