

Communications Usage Trend Survey in 2003 Compiled

MPHPT has compiled the Communications Usage Trend Survey as of the end of CY2003 in order to grasp the usage trends in telecommunications and broadcasting services within households (households and households members), offices (establishments) and companies (enterprises).

[Highlights of the survey results]

- The number of Internet users was 77.30 million.
The number of Internet users was 77.30 million, an increase of 7.88 million over the previous year.
- The population coverage rate surpassed the 60% mark for the first time.
The population coverage rate was 60.6%, growing by 6.1 percentage points over the previous year.
- The number of household subscribers to broadband circuits grew to almost one-half of all households in Japan.
Taking a look at access methods to the Internet, households that subscribe to broadband access circuits increased by 18.2 percentage points to 47.8%. On the contrary, subscribers to ISDN and dial-up access to the Internet decreased.
- The digital divide still exists.
The usage rates for the age groups of their 40s and 50s have considerably increased. The divide by income and gender tended to narrow. The digital divide, however, still exists.
- One-third of Internet users via PCs have suffered from viruses, SPAMs, etc.
Of Internet users via PCs, victims of viruses, SPAMs, etc. increased by 3.8 percentage points to 33.6%. By type of damages, "detection or infection of viruses" was the worst, reaching 21.5% of users.

<Outlines of the survey>

The "Communications Usage Trend Survey," which is composed of the following 3 sections: "Households/household members," "Offices (establishments)" and "Companies (enterprises)," has been conducted annually since 1990* as a statistical survey authorized by MPHPT in accordance with the Statistical Report Coordination Law. The survey on "household members" was added in 2001. In 2002, the survey was conducted as indicated in the Table [Details of the survey]:

(*The section "Companies (enterprises)" was conducted as the annual survey on "Corporate Networks" in 1993, 1995 and

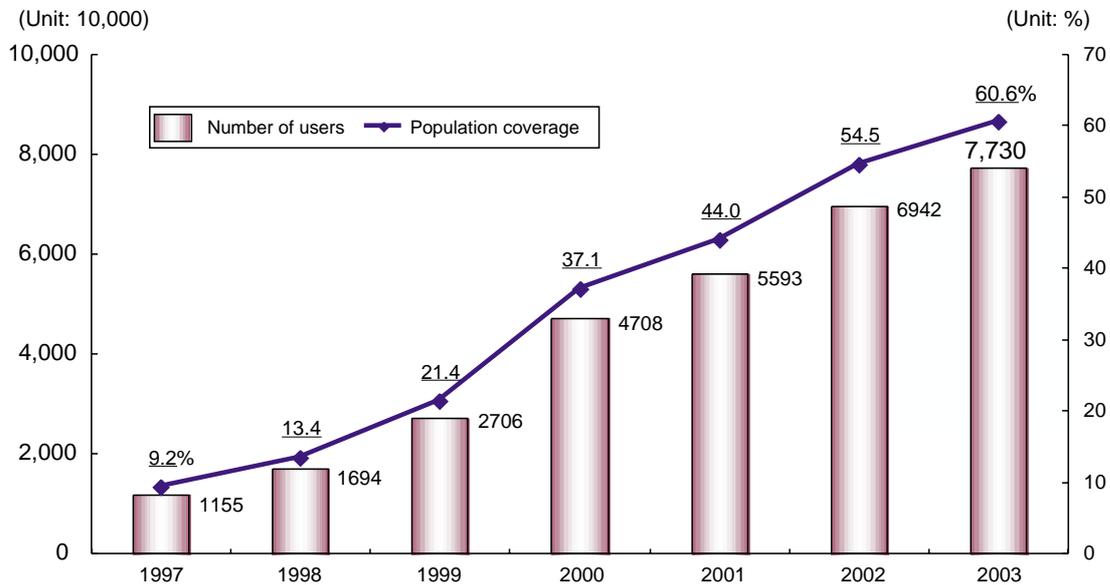
	Households	Offices (Establishments)	Companies (Enterprises)
Survey period	As of January 2004		
Survey area	Nationwide	Nationwide	Nationwide
Object samples surveyed	Households (including single households) headed by someone aged 20 or older as of April 1, 2003	Establishments with more than 5 regular employees excluding the industries of "Postal Services" and "Telecommunications" as defined in JSIC	Enterprises with more than 100 regular employees, excluding the industries of "Agriculture," "Forestry," "Fisheries" and "Mining" as defined in JSIC.
Number of samples	6,400	5,600	3,000
Effective replies (Rate)	3,354 (11,653 people) (52.4%)	3,235 (57.8%)	2,273 (75.8%)
Items surveyed	Communications usage trend		
Sampling Method	Random sampling (Stratified Two-stage Sampling on city, town or village status)	Random sampling (Systematic Sampling on regular employee size for each industry)	Random sampling (Systematic Sampling on regular employee size for each industry)
Method of survey	Mail survey (real mail)		

1996 separately, has been added in 1997 as a section of "Communications Usage Trend Survey.")

1. Penetration rate of the Internet

- The number of Internet users and population coverage as of the end of 2003

The number of Internet users increased by 7.88 million to 77.30 million and the population coverage was 60.6% (an increase of 6.1 percentage points over the previous year), surpassing the 60% mark for the first time.

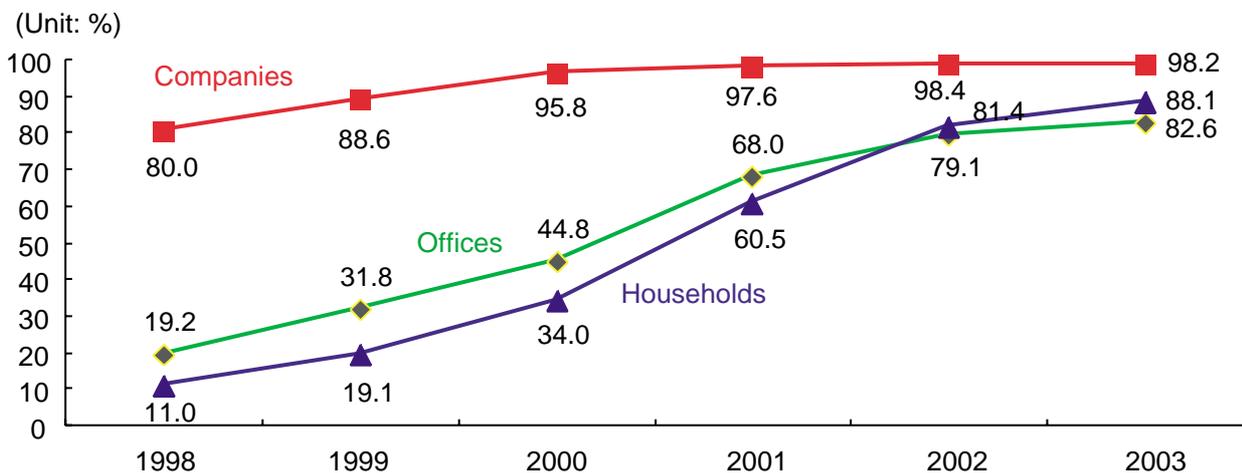


Notes:

- The number of Internet users includes: i) persons who use one or more equipment such as PC, cellular/PHS telephones, game console, TV units with access functions, etc. and ii) Aged six or higher.
- “60.6%” in 2003 indicates the Internet penetration rate to the population of Japan (including aged 5 and younger), and it was calculated as follows:
 $77.30 \text{ million Internet users} / 127.52 \text{ million persons (nation's total population*)} = 60.6\%$
 *The total population of Japan was based on the data “Projected future population and proportion by age group, 2000-2050: Medium variant”(National Institute of Population and Social Security Research)
- The figures for 1997 to 2000 were excerpts from the “2003 WHITE PAPER Information and Communications in Japan” (Ministry of Public Management, Home Affairs, Posts and Telecommunications). Figures for CY2001 and 2002 were estimates of this survey.
- Upon estimate, taking into consideration the increase in the number of Internet users in the age groups of the elderly and students of elementary/lower secondary schools, the scope of surveyed age groups has been widened year on year. Thus, the comparison with estimated results in 2000 or earlier is not accurate. (Surveyed were aged 15- 69 in 1999 or earlier; 15 – 79 in 2000; aged six or higher since 2001).

• The Internet penetration rates for households (households and households members), offices (establishments) and companies (enterprises)

The household Internet penetration rate for households was 88.1% (increased by 6.7 percentage points over the previous



year), that for offices (establishments) 82.6% (increased by 1.2 percentage points over the previous year) and companies (enterprises) 98.2% (decreased by 0.2 percentage points over the previous year).

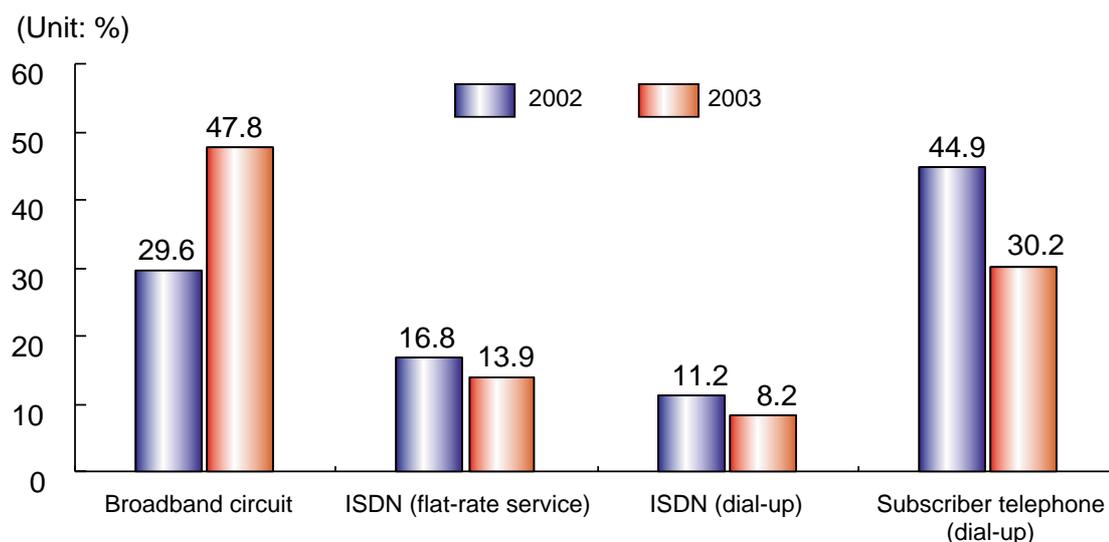
The penetration rate for households indicates the ratio of households having one or more members who use(s) the Internet at home or other locations through use of PCs, mobile telephones, etc. for individual purposes.

2. Broadband penetration rates for households/individuals

- Access methods to the Internet at home via PCs

Taking a look at access methods to the Internet, households that subscribe to broadband access circuits increased by 18.2 percentage points to 47.8%. On the contrary, subscribers to ISDN (flat-rate services to the Internet), ISDN (dial-up access) and subscriber telephone services (dial-up access) decreased over the previous year.

Fig. 1 Transition in the ratios by access circuit at home (multiple replies) (Of household Internet users via PCs)



Note: "Broadband circuits": DSL, cable Internet, wireless access (FWA, etc.) and fiber-optic cables

3. Digital divide among individuals

- Internet user ratios by attribute

Internet user ratios increased over the previous year in each attribute (higher growth rates were seen in age groups of their 40s and 50s, persons with annual income of less than 2 million yen and women). Although the digital divide by annual income and gender tended to narrow, it still exists.

Fig. 2 Transition in Internet penetration rate by age group

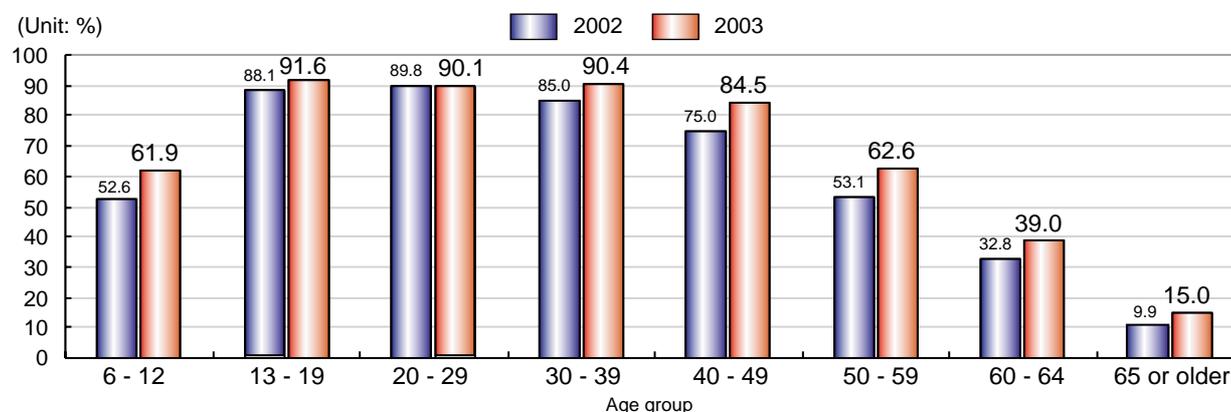


Fig. 3. Transition in Internet penetration rate by household annual income

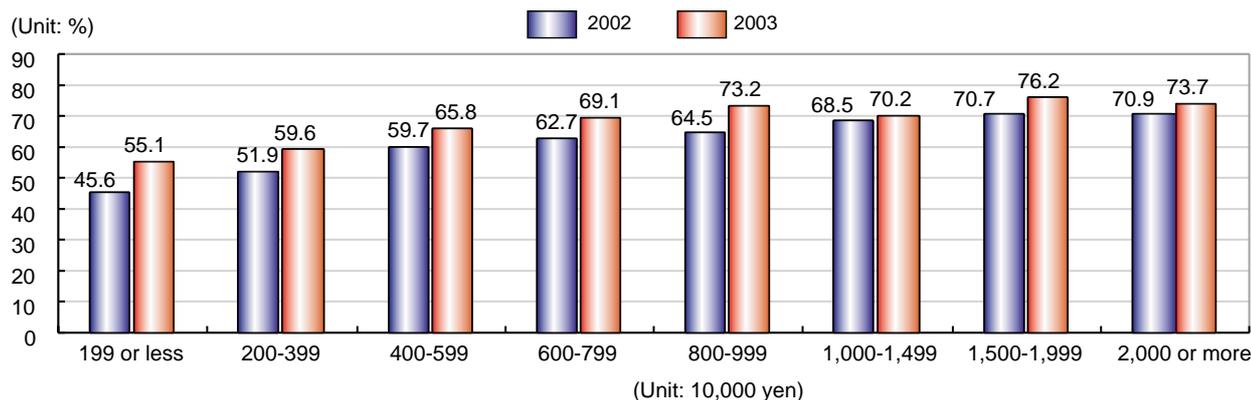


Fig. 4. Transition in Internet penetration rate by gender

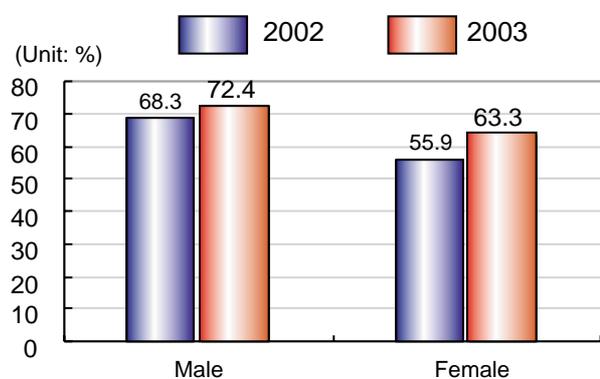
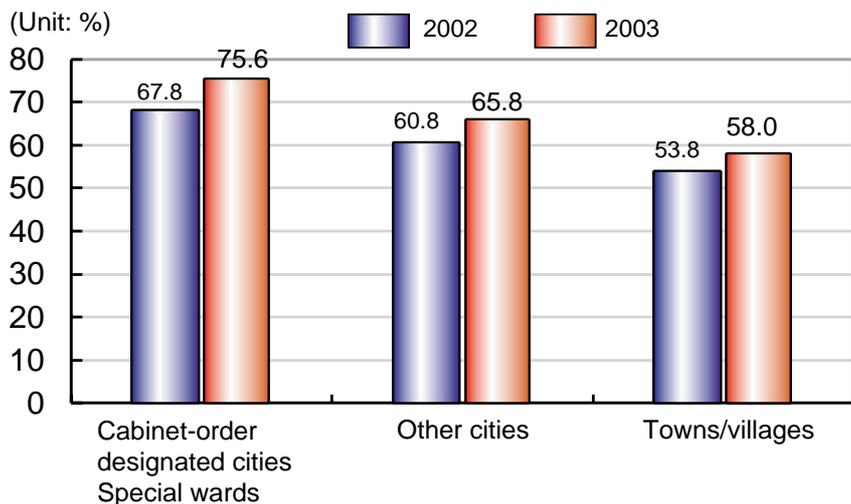


Fig. 5. Transition in Internet penetration rate by municipality size



4. Situation of anxiety, complaints and damages in Internet use by individuals

With respect to anxiety, complaints and damages in Internet use by individuals, 55.4% of the surveyed replied "protection of privacy" followed by "viral infection" (43.1%). The ratio of "no worries, no complaints" was 7.8%. Thus, these results indicate that many Internet users are using the Internet despite anxiety/complaints to some extents.

Fig. 6. Anxiety/complaints upon Internet use (multiple replies)

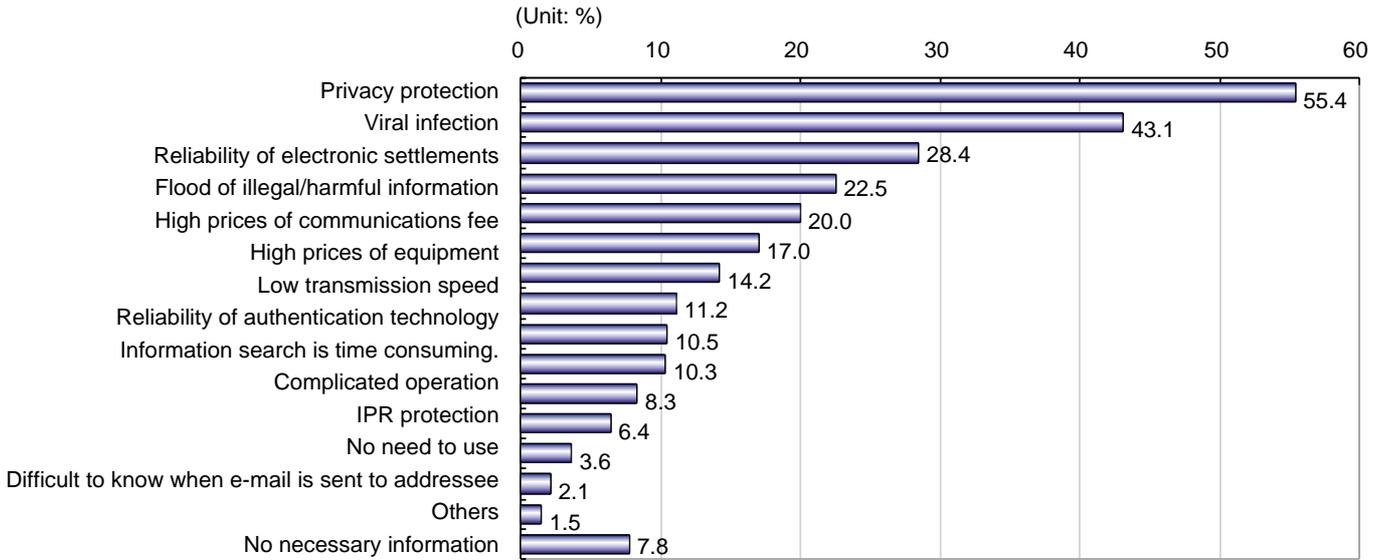
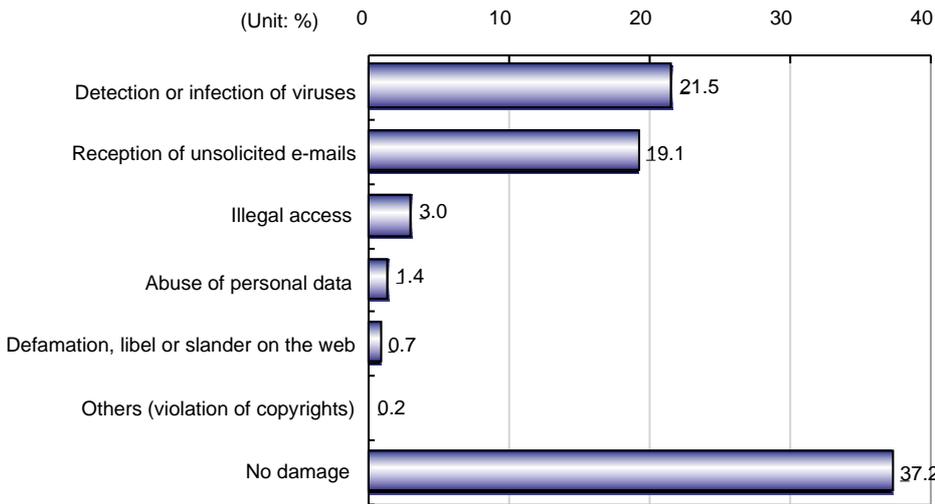


Fig. 7 Victims of the Internet use via PCs by type (multiple replies) (in the past one year)

- Victims of viruses, SPAMs, etc. among Internet users via PCs increased by 3.8 percentage points to 33.6%. By type of damages, "detection or infection of viruses" was the worst, reaching 21.5% of users, followed by "unsolicited e-mails" of 19.1%.



- Current status of Internet security measures taken by users

With regard to security measures, "introduction of virus checking software" was the most popular measures, totaling 32.0%. However, persons who did not take security measures comprised still higher 26.5%.

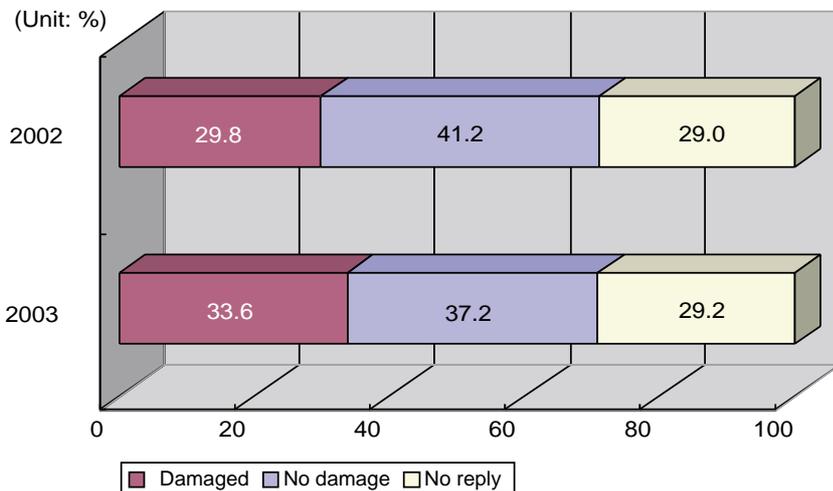
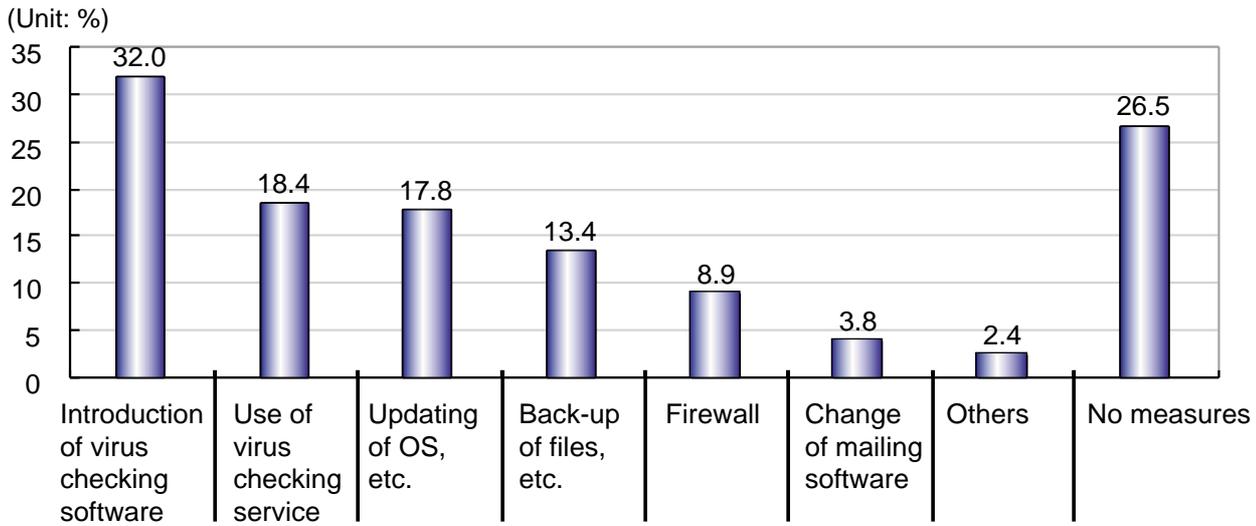


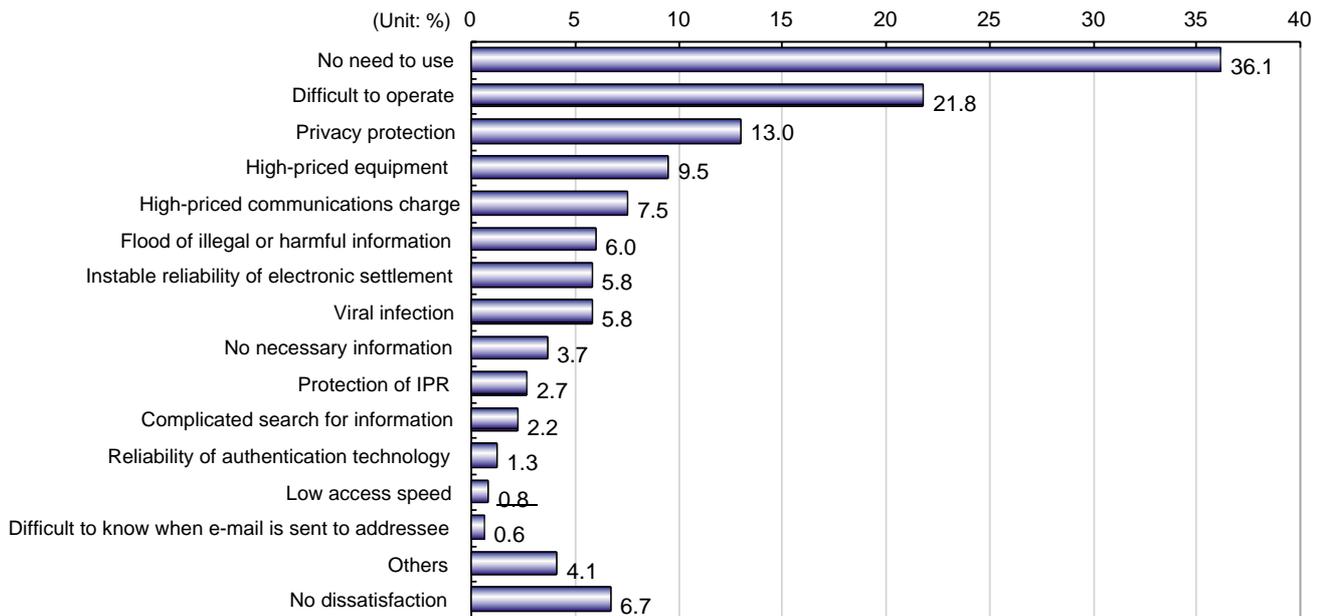
Fig. 8 Security measures by type (multiple replies)



5. Reasons not to use the Internet for individuals (who have not used the Internet)

Regarding reasons not to use the Internet for individuals (who have not used the Internet), "no need to use" was the highest, 36.1%, followed by "difficult to operate PC, etc." (21.8%). "Anxiety for privacy protection" comprised 13.0%.

Fig. 9 Reasons not to use the Internet for individuals (multiple replies)

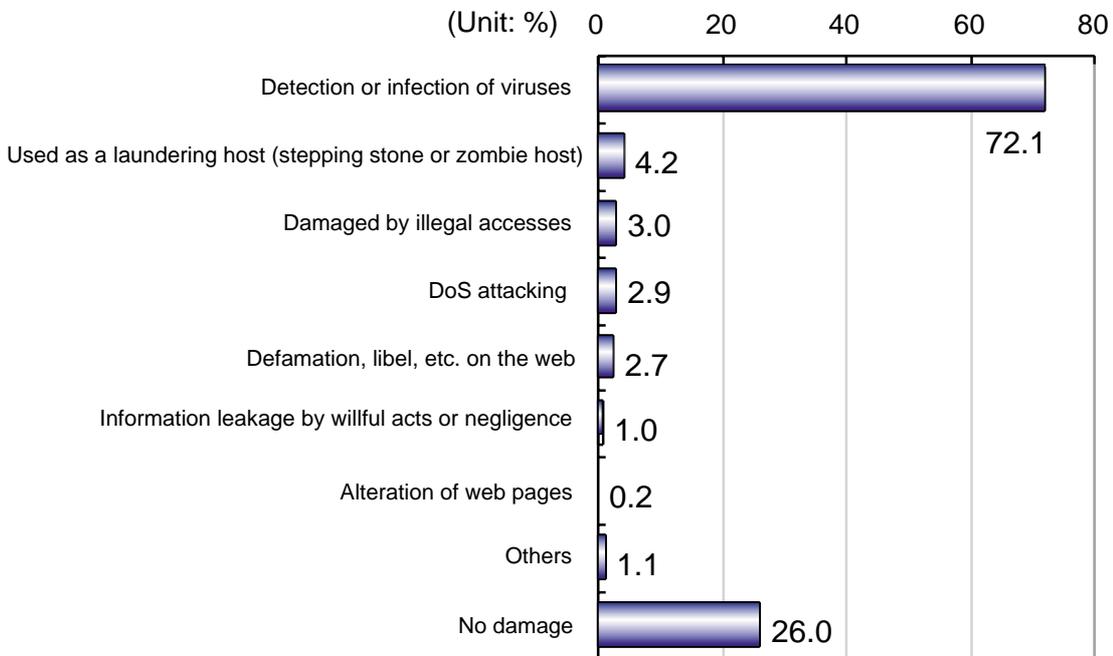
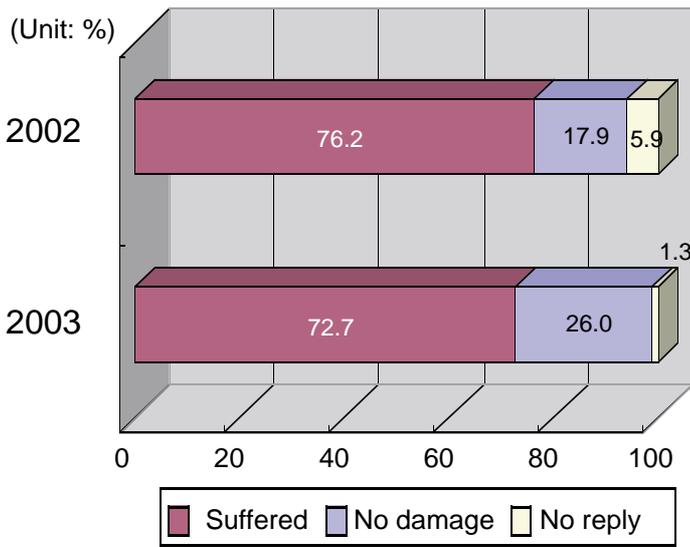


6. Damages, countermeasures, etc. concerning companies' information and communications networks

- Damages, countermeasures, etc. concerning companies' information and communications networks (the Internet, intranets, etc.)

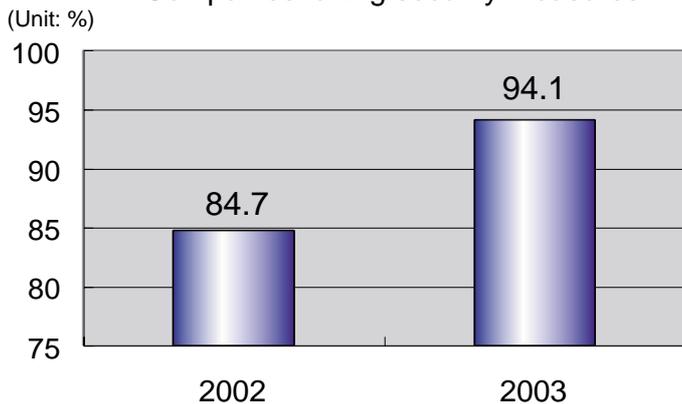
"Companies suffered from damages" decreased by 3.5 percentage points to 72.7%. By damage, "detection or infection of viruses" was the highest, reaching 72.1%.

Fig. 10 Damages and details thereof on companies' information and communications networks (multiple replies over the past one year)



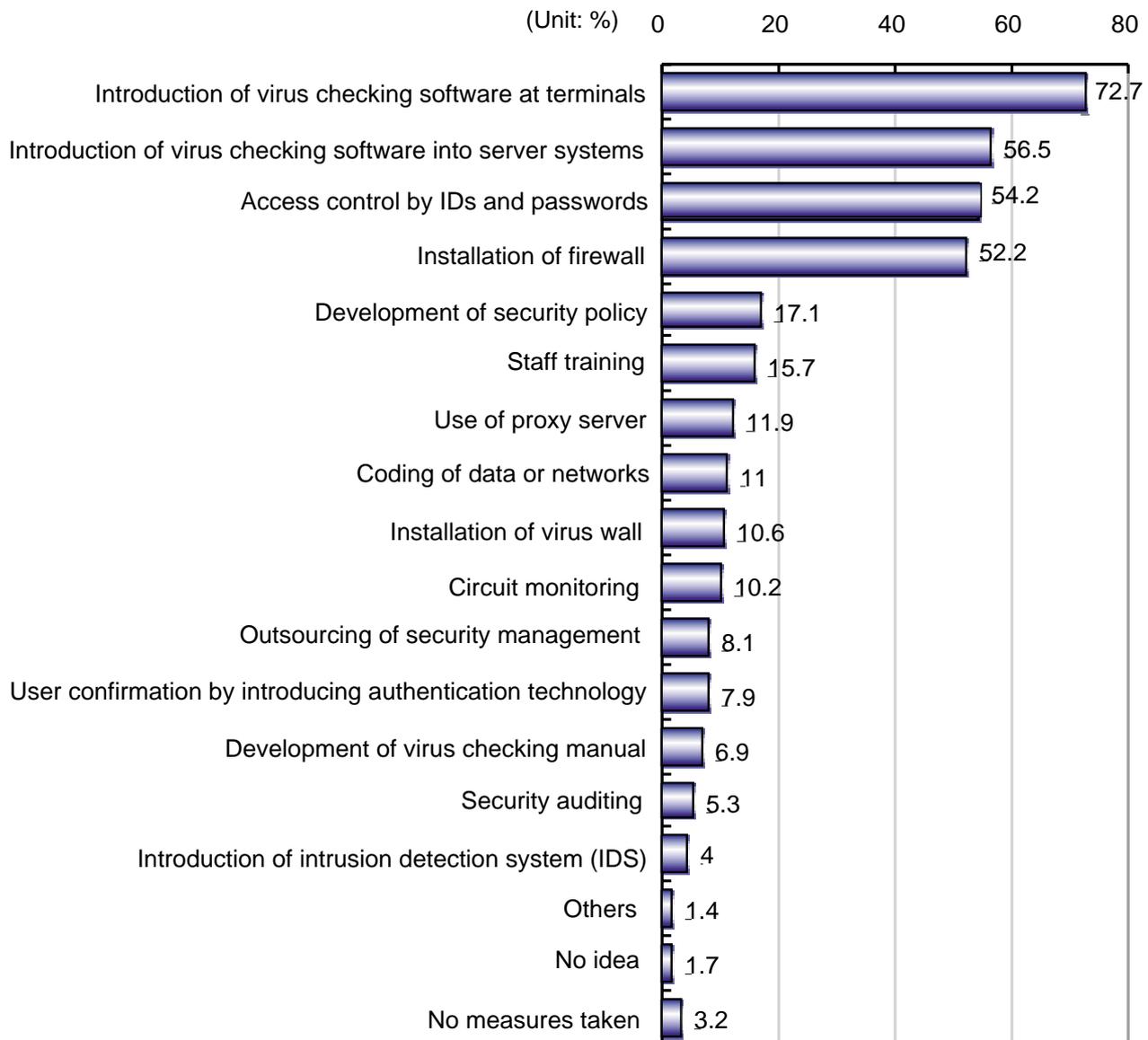
- Notes:
1. To access without permission to computer systems of companies, etc. for causing some kind of damages, or to use them illegally
 2. Denial-of-service (DoS) attack sends a flood of e-mails to a mail server for making the server down, thereby it cannot offer any service.

Companies taking security measures



Companies taking some kinds of security measures increased by 9.4 percentage points over the previous year to 94.1%. Specifically, the most popular measures were "introduction of virus checking software at terminals" (72.7%). Measures such as "introduction of virus checking software into server systems," "access control by IDs and passwords" and "installation of firewall" have already been taken by more than 50% of companies.

Fig. 11. Companies taking some security measures

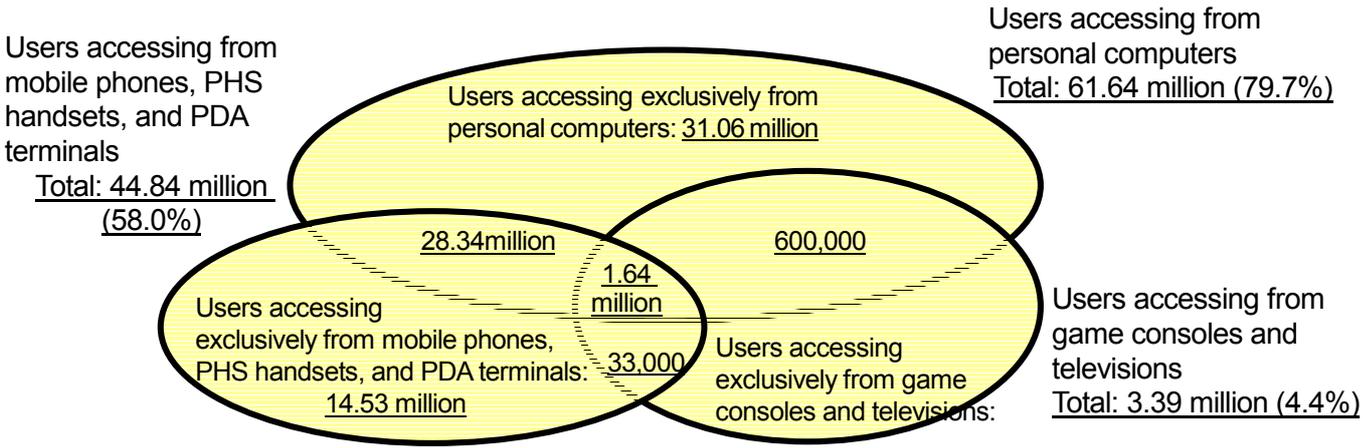




Additional Survey Results
(1) Households and Individuals

1 State of Internet Growth

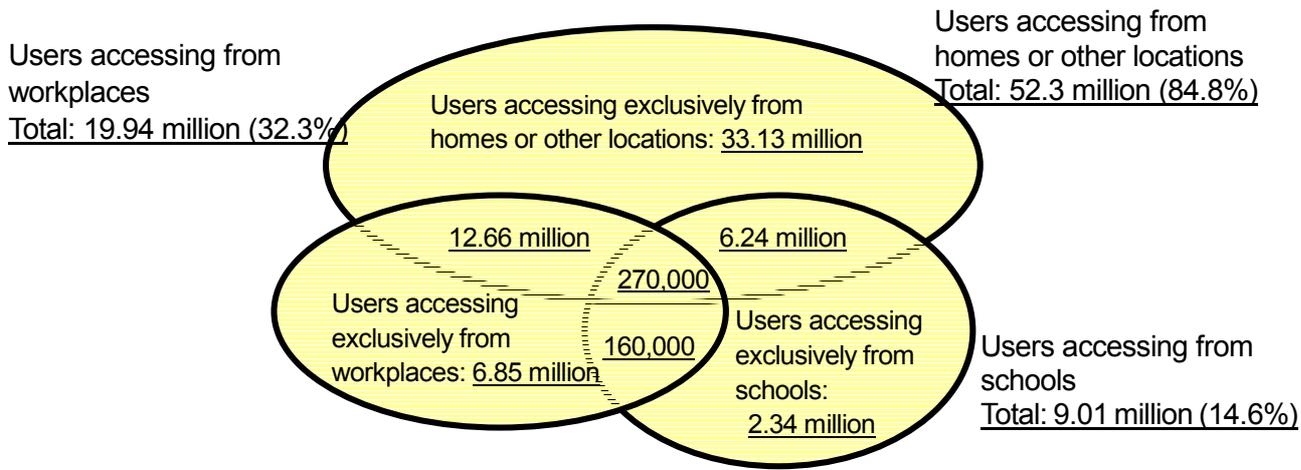
• **Individual Internet Usage by Terminal Type**
More people accessed the Internet from *personal computers* than from any other type of terminal (61.64 million, or 79.7 percent of Internet users). 44.84 million people accessed the Internet from *mobile phones, PHS handsets, and personal digital assistant (PDA) terminals*.



Note: Figures inside parentheses represent percentages of the total number of Internet users aged six or older. The sum of all parenthetical figures does not total 100. Furthermore, due to rounding in calculations, the sum of all Internet user categories does not necessarily equal the total number of Internet users.

Number of Internet Users: 77.3 million

• **Individual Personal-Computer Internet Usage by Location**
The largest segment of users access the Internet from personal computers at their *homes or other locations* (52.3 million).



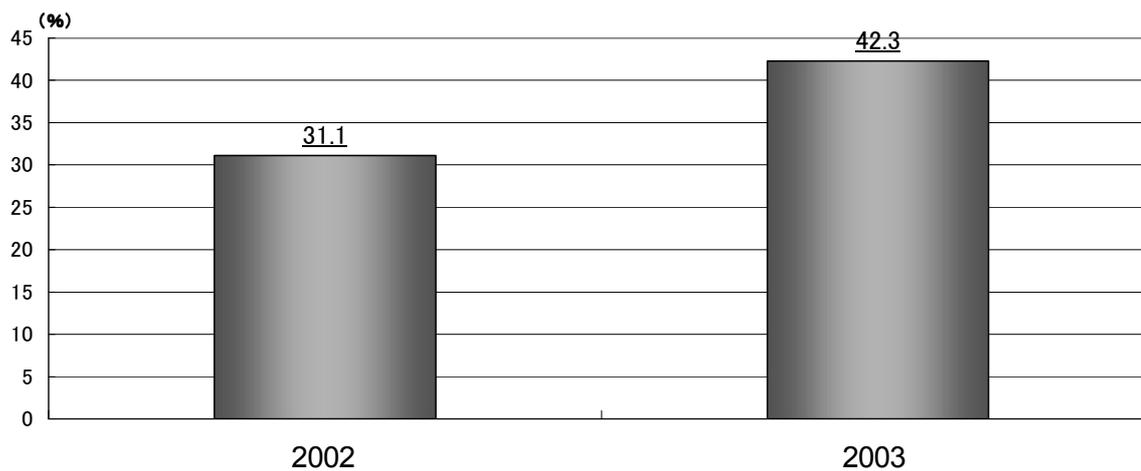
Note: Figures inside parentheses represent percentages of the total number of users (aged six or older) accessing the Internet from personal computers. The sum of all parenthetical figures does not total 100. Furthermore, due to rounding in calculations, the sum of all Internet user categories does not necessarily equal the total number of Internet users.

Number of Personal-Computer Internet Users: 61.64 million

- **Ratio of Broadband Line Usage by Individuals**

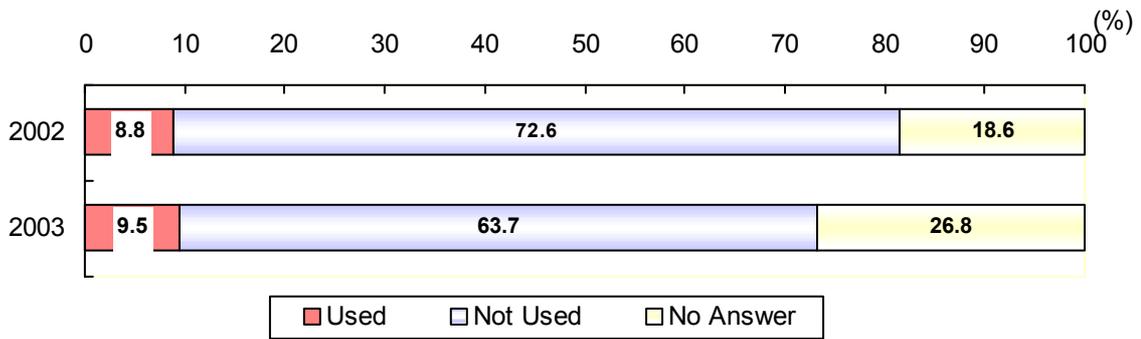
The percentage of individuals accessing the Internet from *personal computers at homes* who use broadband access lines rose 11.2 percentage points from 2002 to 42.3 percent.

Broadband Line Usage by Individuals
(of users accessing the Internet from *personal computers at homes*)

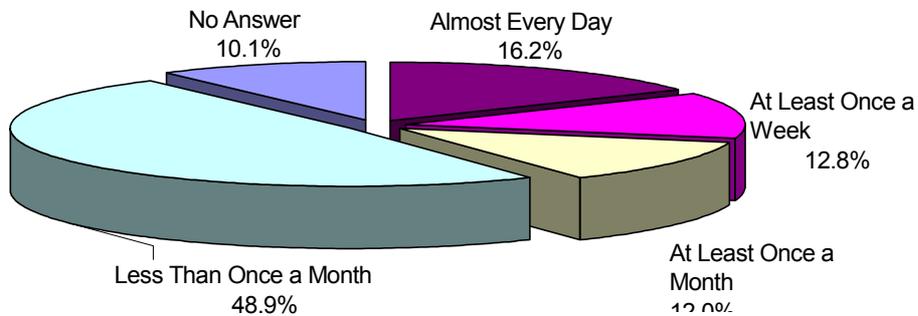
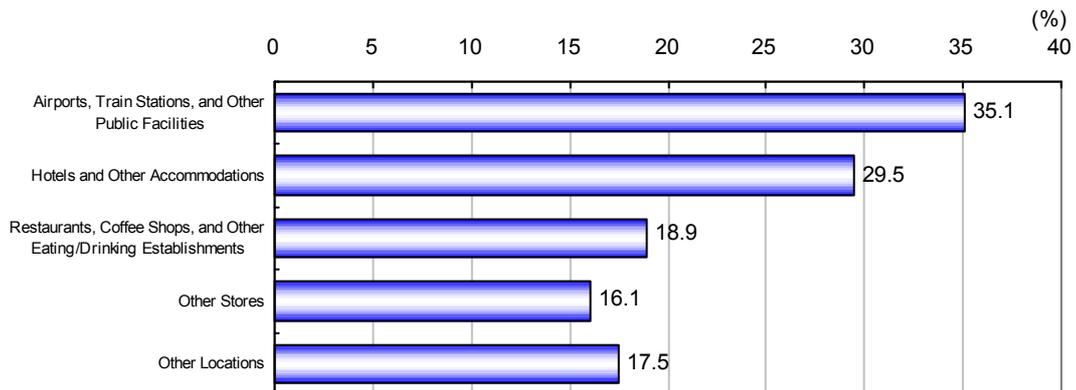


- **Usage of Wireless LAN Services in Public Spaces (Hotspots) by Individuals**
 9.5 percent of Internet users use *hotspots*. The most common hotspots used were *airports, train stations, and other public facilities* (35.1 percent) and *hotels and other accommodations* (29.5 percent). In terms of usage frequency, nearly 30 percent of users — combining people who use hotspots *almost every day* (16.2 percent) and people who use hotspots *at least once a week* — use hotspots one time or more a week.

Usage of Wireless LAN Services in Public Spaces



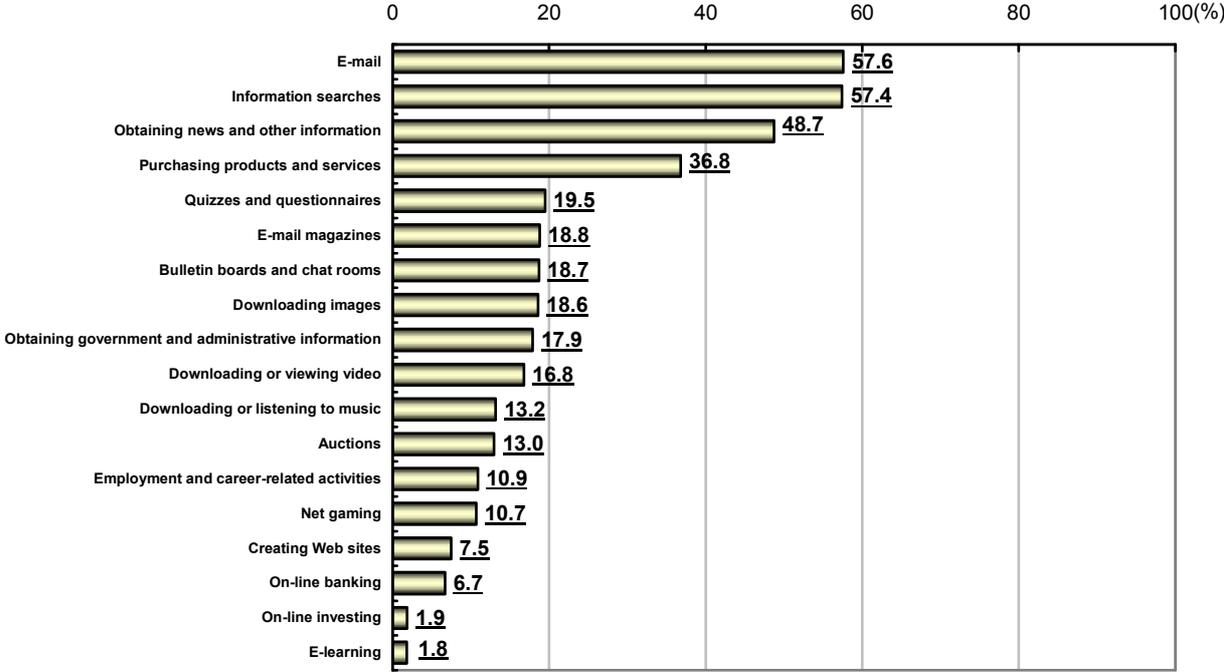
Use of Wireless LAN Services in Public Spaces by Location and Frequency



2 State of Individual Internet Usage

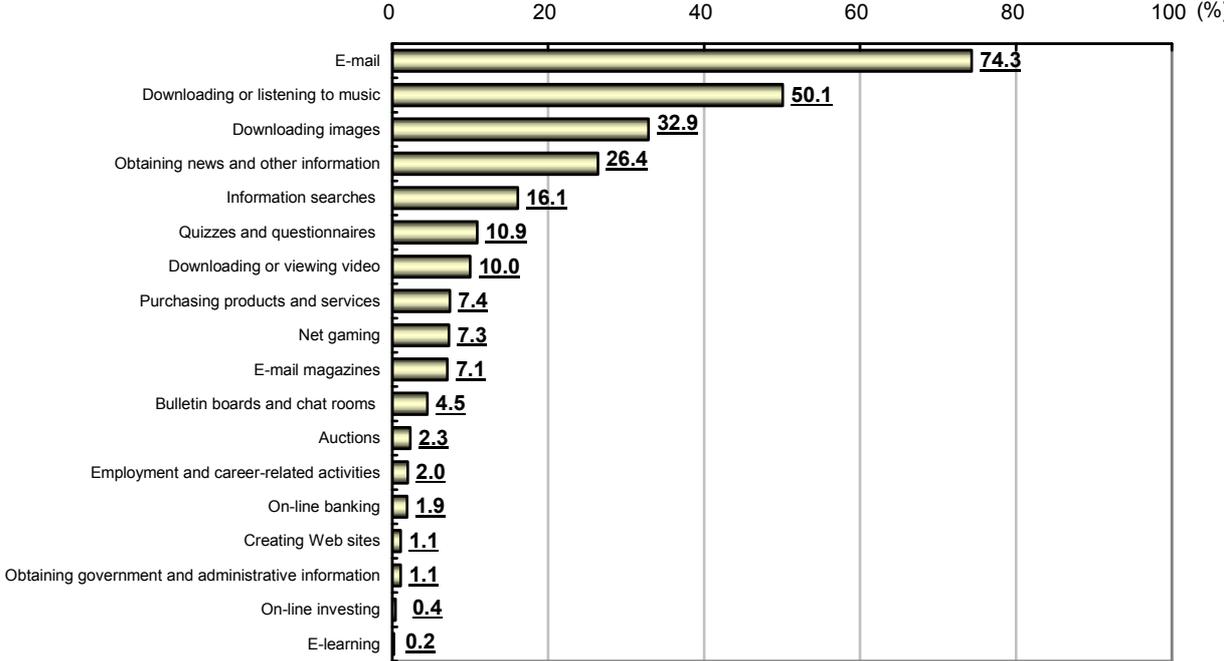
- **Internet Applications Used from Personal Computers**
E-mail is the most common Internet application at 57.6 percent, followed by information searches at 57.4 percent.

Internet Applications Used from Personal Computers (multiple answers permitted)



- **Mobile Internet Applications**
E-mail is the most common Internet application at 74.3 percent, followed by downloading or listening to music at 50.1 percent.

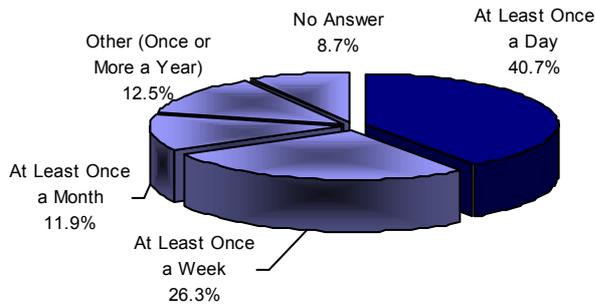
Mobile Internet Applications (multiple answers permitted)



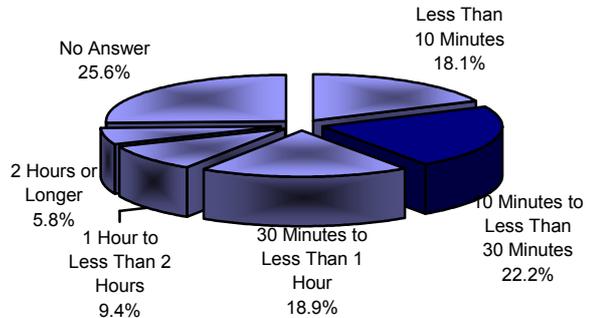
- Frequency and Duration of Internet Access by Individuals**

The most common response among users surveyed regarding Internet access frequency was *at least once a day* (40.7 percent). In regard to the average duration per access, the most common response was *10 minutes to less than 30 minutes* (22.2 percent).

Internet Access Frequency



Average Internet Usage Duration (per access)



- Use of Internet for Shopping by Individuals**

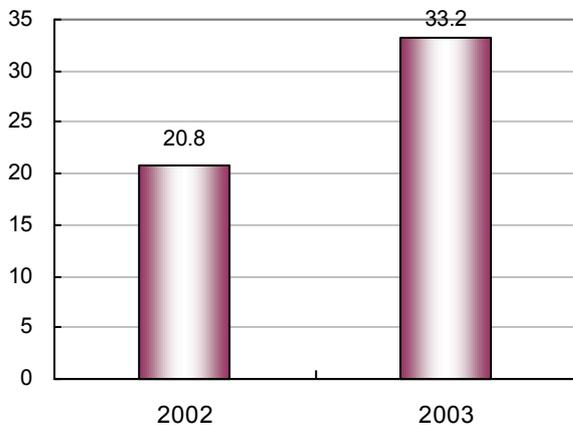
The percentage of Internet users who use the Internet for shopping from personal computers or mobile phones rose 12.4 percentage points from 2002 to 33.2 percent.

Of users who access the Internet from personal computers, 36.8 percent said they use the Internet for shopping, while 7.4 percent of mobile-phone Internet users said they shop over the Internet.

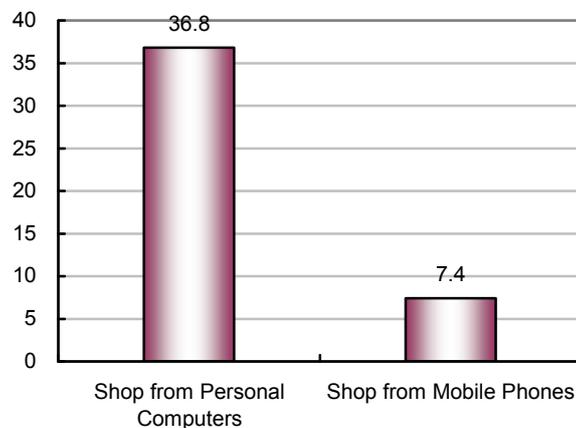
Use of Internet Shopping (over the last year)

Comparison Between 2002 and 2003

Personal computer or mobile phone



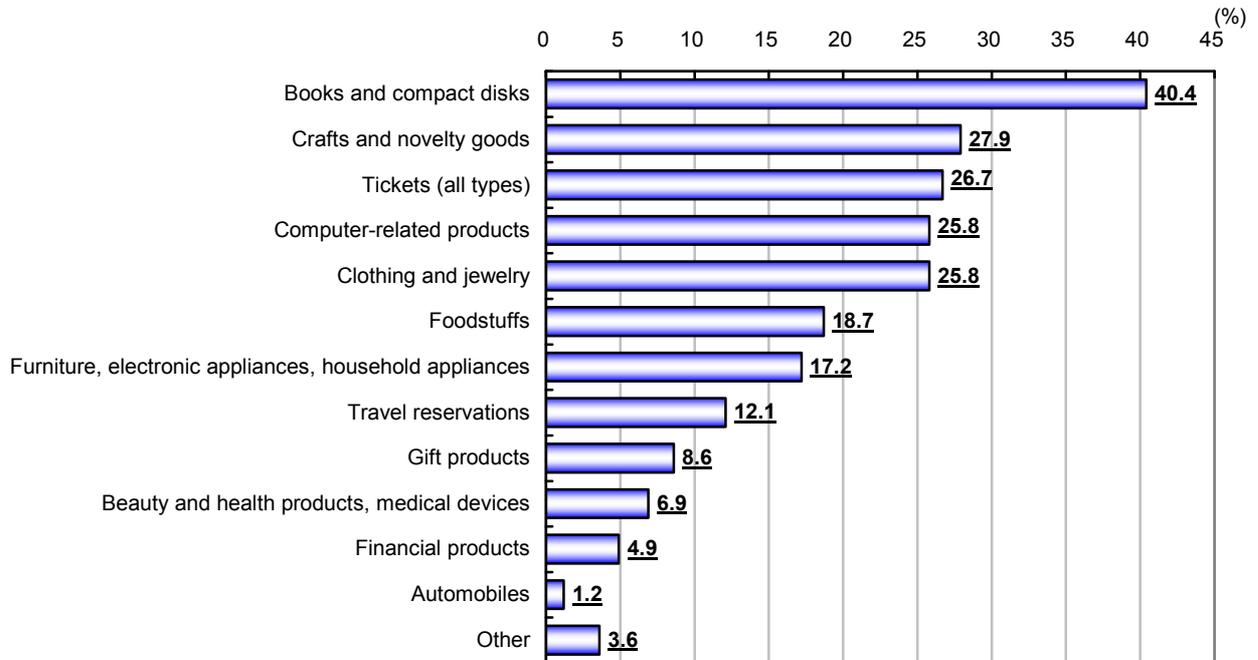
Comparison Between Personal-Computer Users and Mobile-Phone Users in 2003



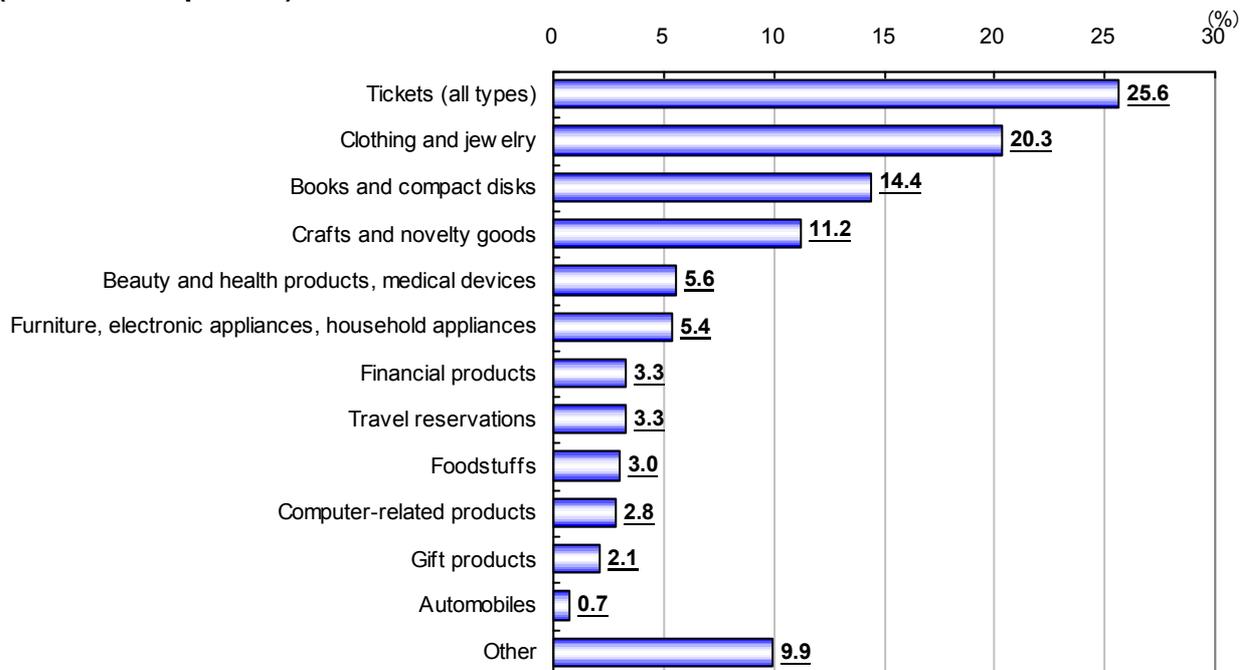
- **Breakdown of Internet Purchases by Individuals**

The most common items purchased over the Internet when accessed from personal computers were *books and compact disks* (40.4 percent). Conversely, the most common items purchased from mobile phones were *tickets (all types)* (25.6 percent).

**Breakdown of Internet Purchases (multiple answers permitted)
(From personal computers)**

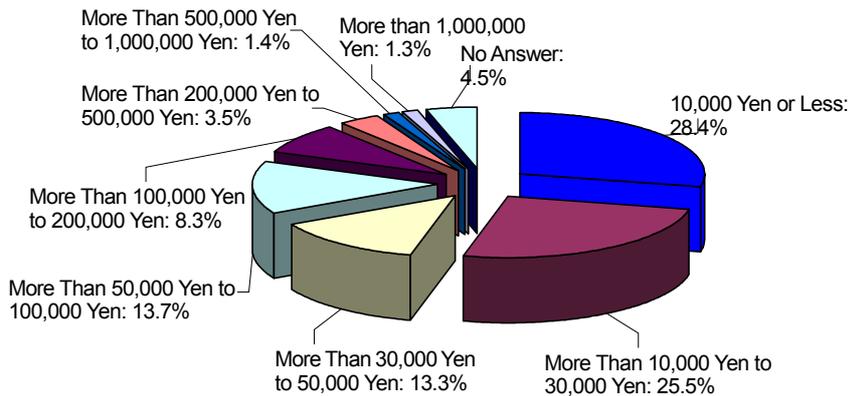


(From mobile phones)

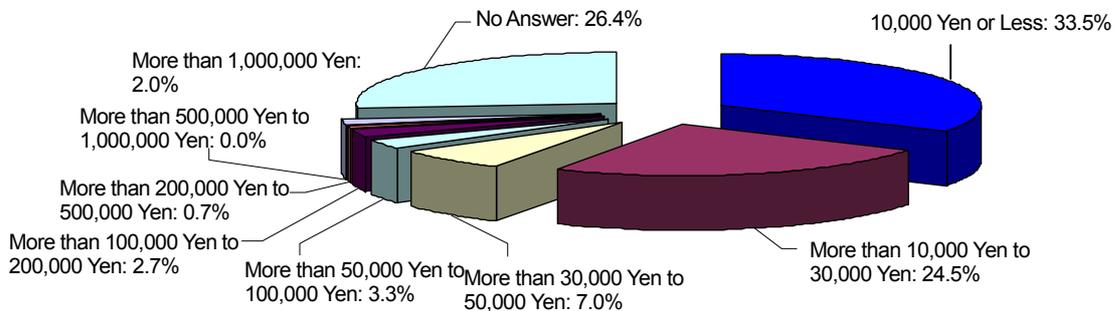


- Amount of Internet Purchases and Their Payment Methods by Individuals**
 The most common response for the amount of Internet purchases (total over one year) from personal computers was *10,000 yen or less* (28.4 percent). Similarly, *10,000 yen or less* was the most frequent answer from mobile-phone users (33.5 percent).
 In regard to payment methods, the top answer from personal-computer users was *credit cards* (48.2 percent), while the top answer from mobile-phone users was *payment on delivery* (27.8 percent).

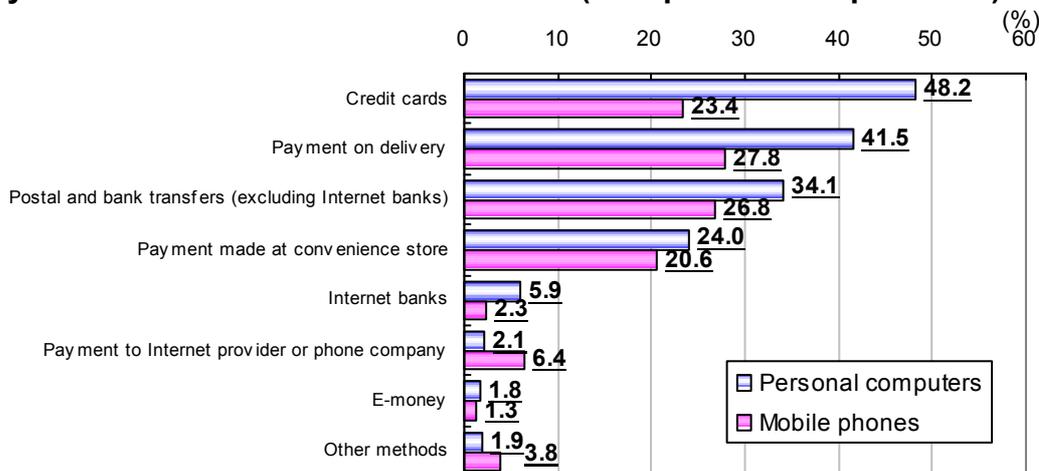
**Amount of Internet Purchases
(From Personal Computers)**



(From Mobile Phones)



Payment Methods for Internet Purchases (multiple answers permitted)



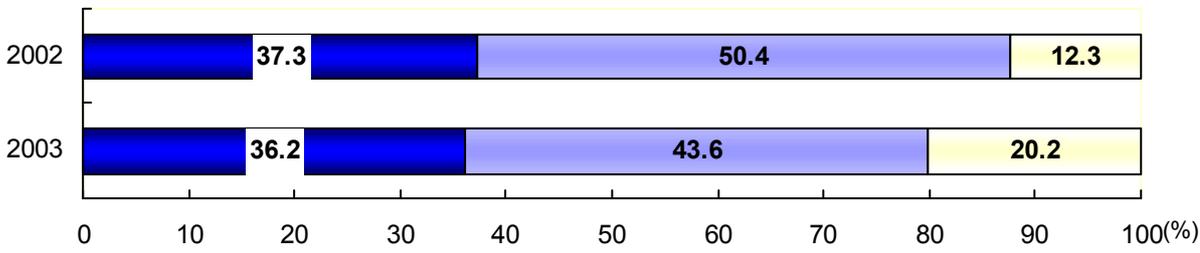
3 State of For-fee Content Purchases by Individuals

- For-fee Content Purchases**
 9.5 percent of users accessing the Internet from personal computers purchase for-fee content. The most commonly purchased for-fee content was *software* (28.0 percent) followed by *music* (21.3 percent). The most common amount for for-fee content purchases was *500 yen or less* (15.4 percent).
 Of users accessing the Internet from mobile phones, 36.2 percent purchased for-fee content. The most commonly purchased for-fee content was *ringtones/ringsounds* (84.0 percent) followed by *wallpaper* (43.4 percent). The most common amount for purchases was the same as personal-computer users: *500 yen or less* (30.7 percent).

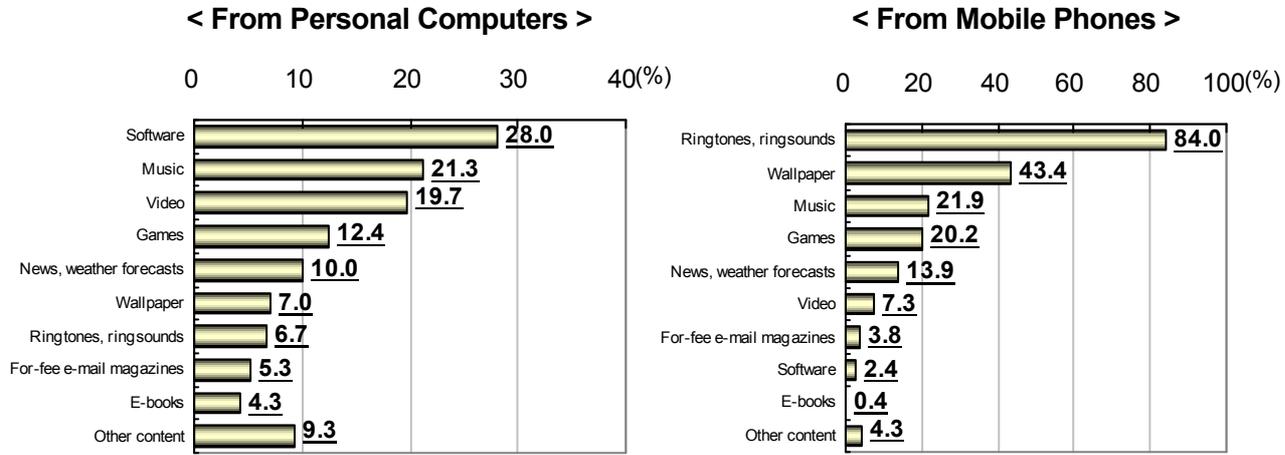
Purchase of For-fee Content by Personal-Computer Internet Users (over the last year)



Purchase of For-fee Content by Mobile-Phone Internet Users (over the last year)



Breakdown of For-fee Content Purchases (answers permitted)



Amount Paid for For-fee Content (total over one year)

Amount Paid	From Personal Computers (%)	
	From Personal Computers	From Mobile Phones
500 yen or less	15.4	30.7
More than 500 yen to 1,000 yen	8.9	19.5
More than 1,000 yen to 2,000 yen	10.9	16.0
More than 2,000 yen to 5,000 yen	12.2	14.4
More than 5,000 yen to 10,000 yen	14.5	6.3
More than 10,000 yen to 20,000 yen	7.3	2.6
More than 20,000 yen to 30,000 yen	3.4	0.8
More than 30,000 yen to 50,000 yen	1.4	0.8
More than 50,000 yen	1.7	0.6
No answer	24.3	8.4
Average purchase amount (estimate)	5,149	2,658

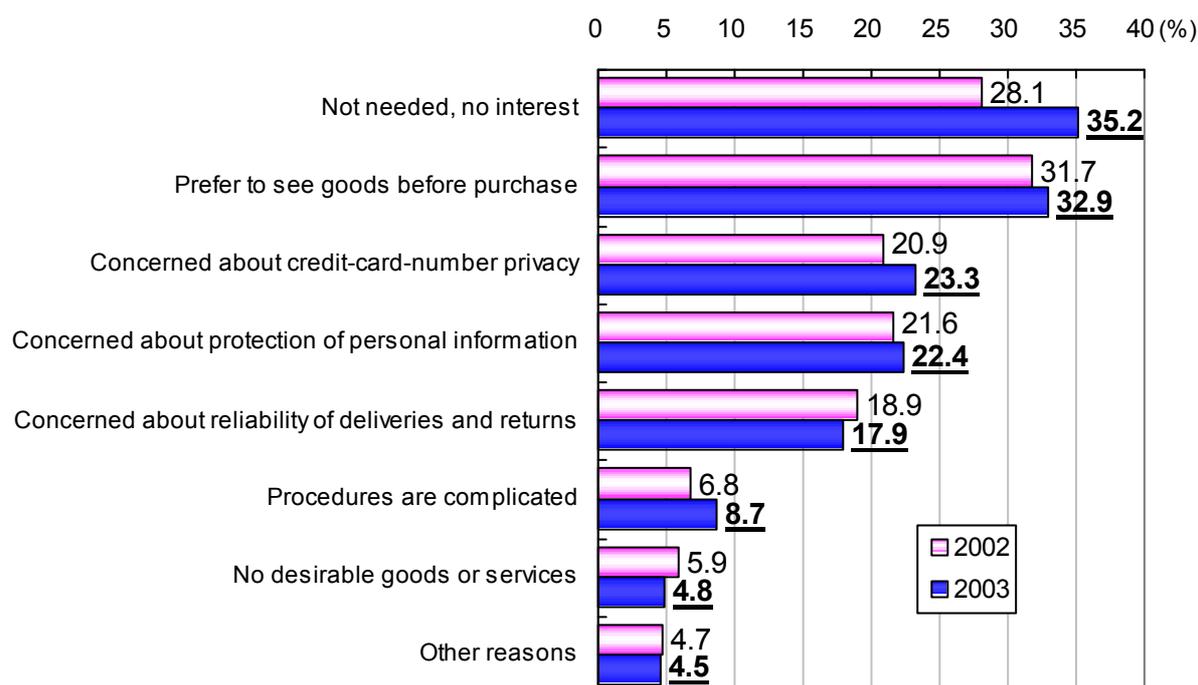
Note: The average purchase amount was estimated using the median value of each purchase amount bracket. 50,001 yen was used for the more than 50,000 yen bracket.

4 Reasons for Not Shopping Over the Internet by

• Reasons for Not Shopping Over the Internet by Individuals

The most common reason Internet users gave for not shopping over the Internet was *not needed, no interest* (35.2 percent) followed by *prefer to see goods before purchase* (32.9 percent).

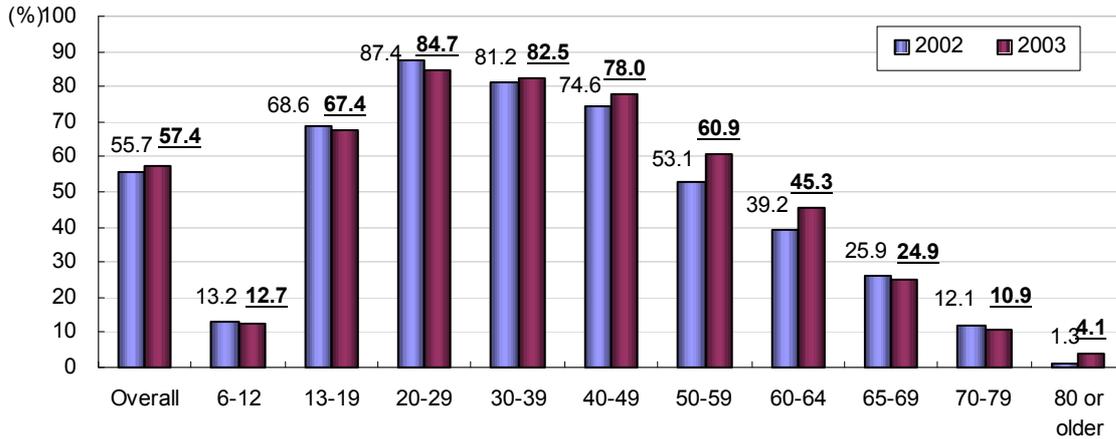
Reasons for Not Shopping Over the Internet (multiple answers permitted) (of Internet users)



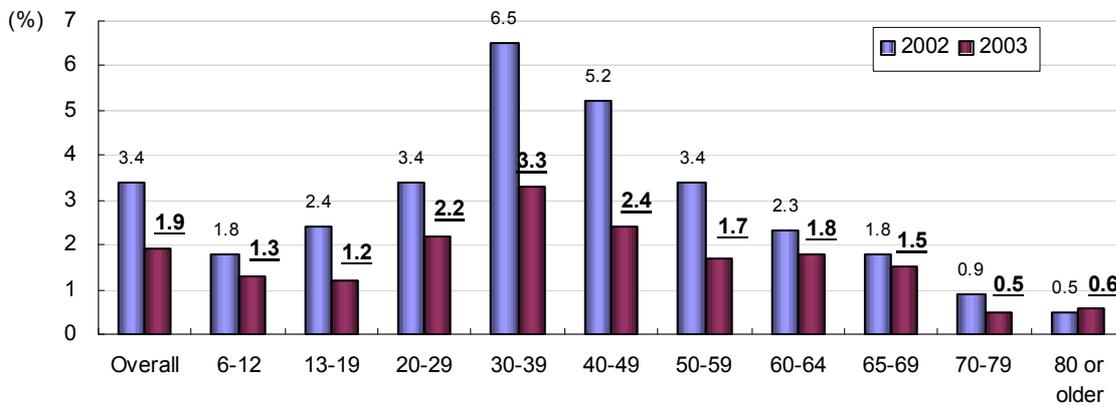
5 State of Info-communication Device Usage by

- **Percentage of Individuals Using Info-communication Devices by Age**
The percentage of mobile-phone and personal-computer use climbed from 2002, but an age-based digital divide is still present.

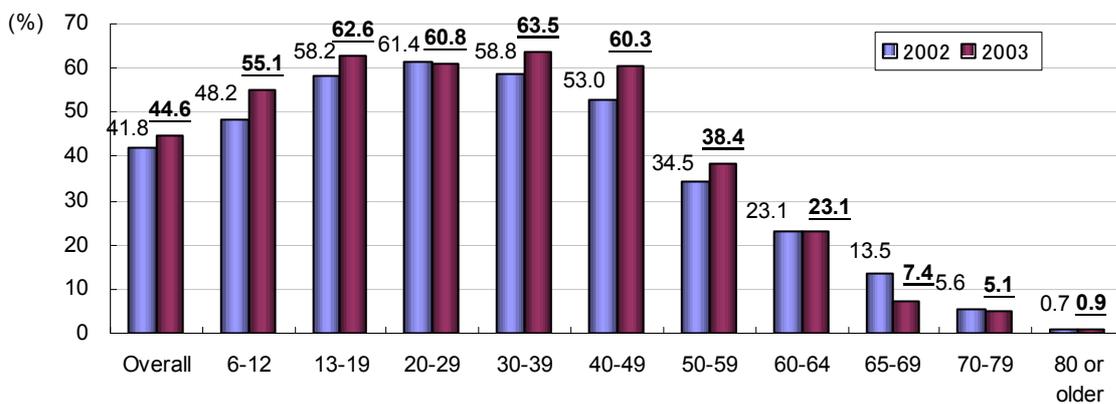
(1) Percentage of Individuals Using Mobile Phones



(2) Percentage of Individuals Using PHS Handsets

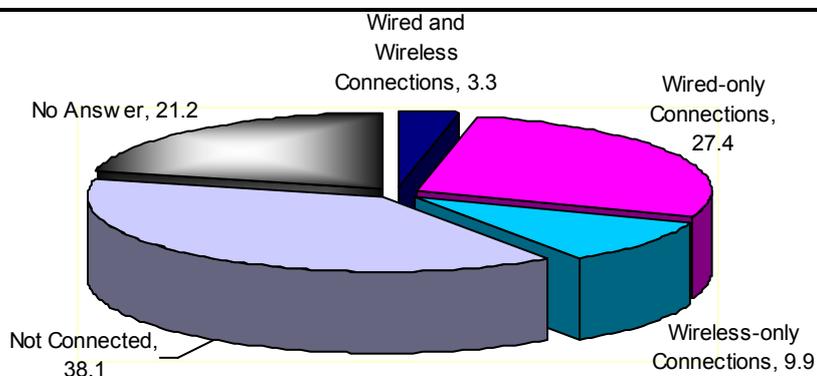


(3) Percentage of Individuals Using Personal Computers

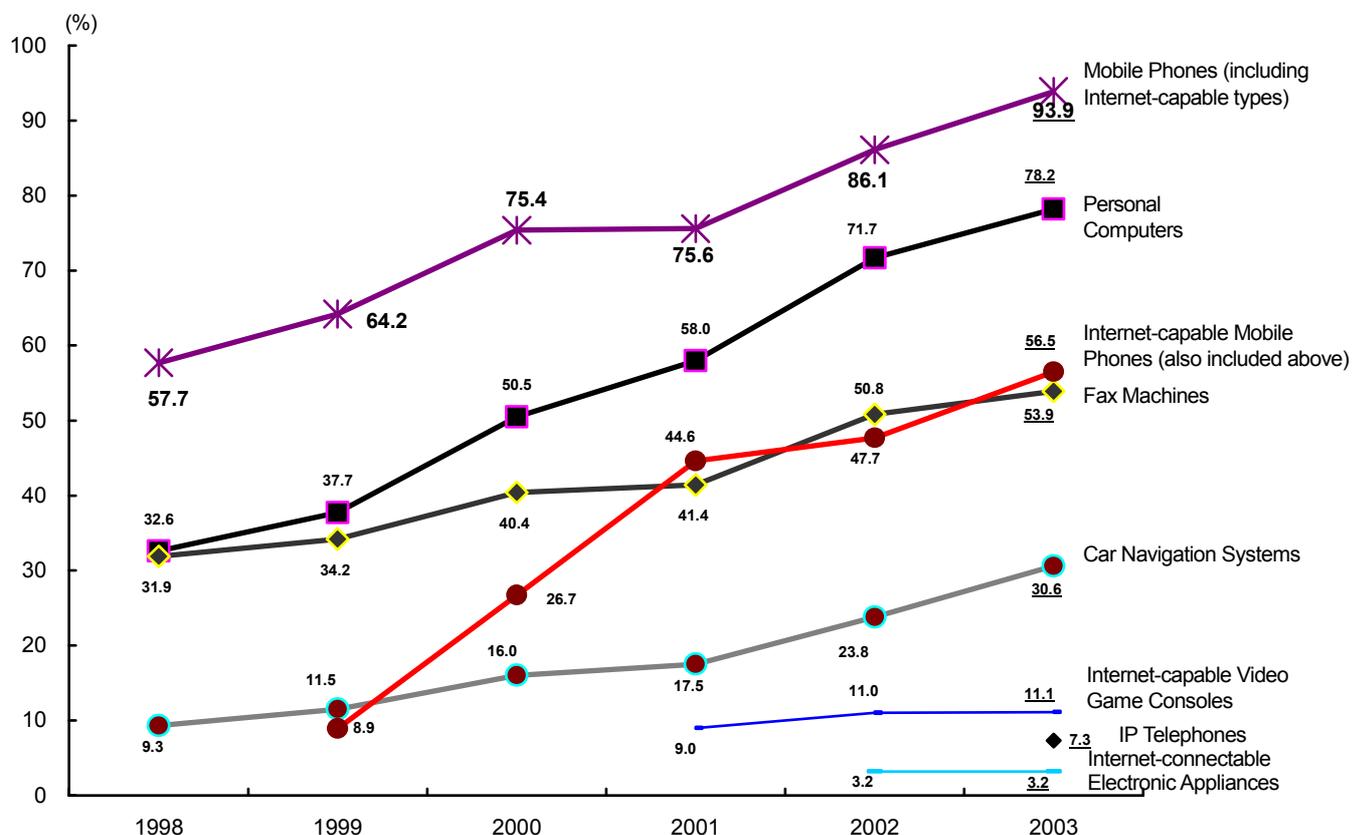


6 State of Info-communication Device Ownership and State of Broadcast Service Usage by Households

- Percentage of Households with Home LAN Installations
40.6 percent of households that own two or more computers have home LAN installations.



- Info-communication Device Ownership and IP Telephone Usage by Households
The household ownership rate for mobile phones increased 7.8 percentage points from 2002 to 93.9 percent.
Households are steadily adopting IT, as seen by a 78.2 percent computer-ownership ratio and a car-navigation-system-ownership rate of 30.6 percent.
7.3 percent of households surveyed reported that they use IP telephones.



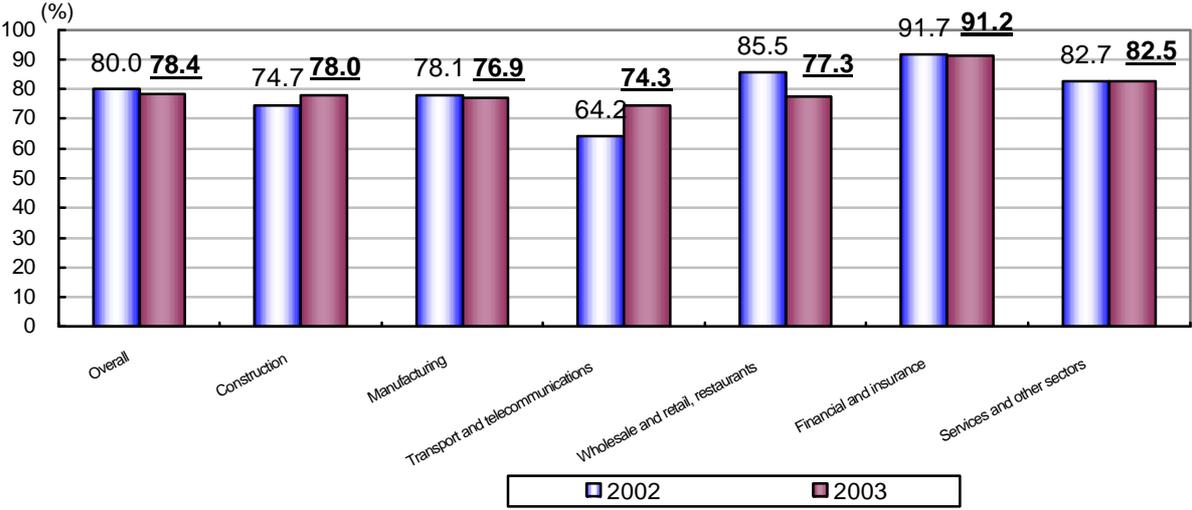
Note: Internet-capable mobile phones were included in the survey starting in 1999, Internet-capable video game consoles in 2001, and Internet-connectable electronic appliances in 2002.

The 2003 survey was the first to include IP telephones.

Additional Survey Results
(2) Corporations

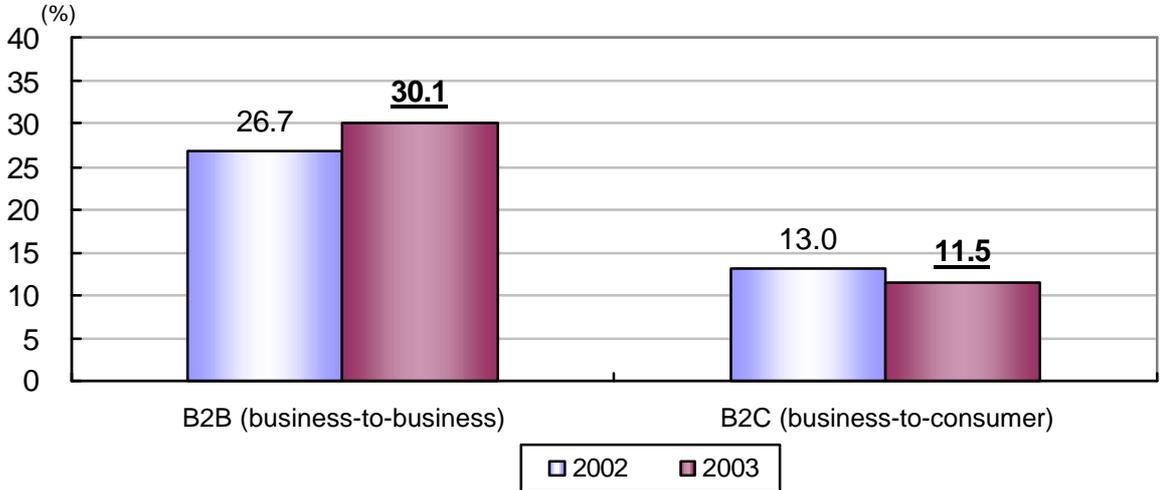
1 State of Corporate Internet Usage

- Percentage of Corporations with Web Sites**
 Nearly 80 percent of corporations surveyed have established Web sites. Positive responses were comparatively higher in the service industries — *financial and insurance* and *services and other sectors* — with more than 80 percent of corporations indicating they had established Web sites.

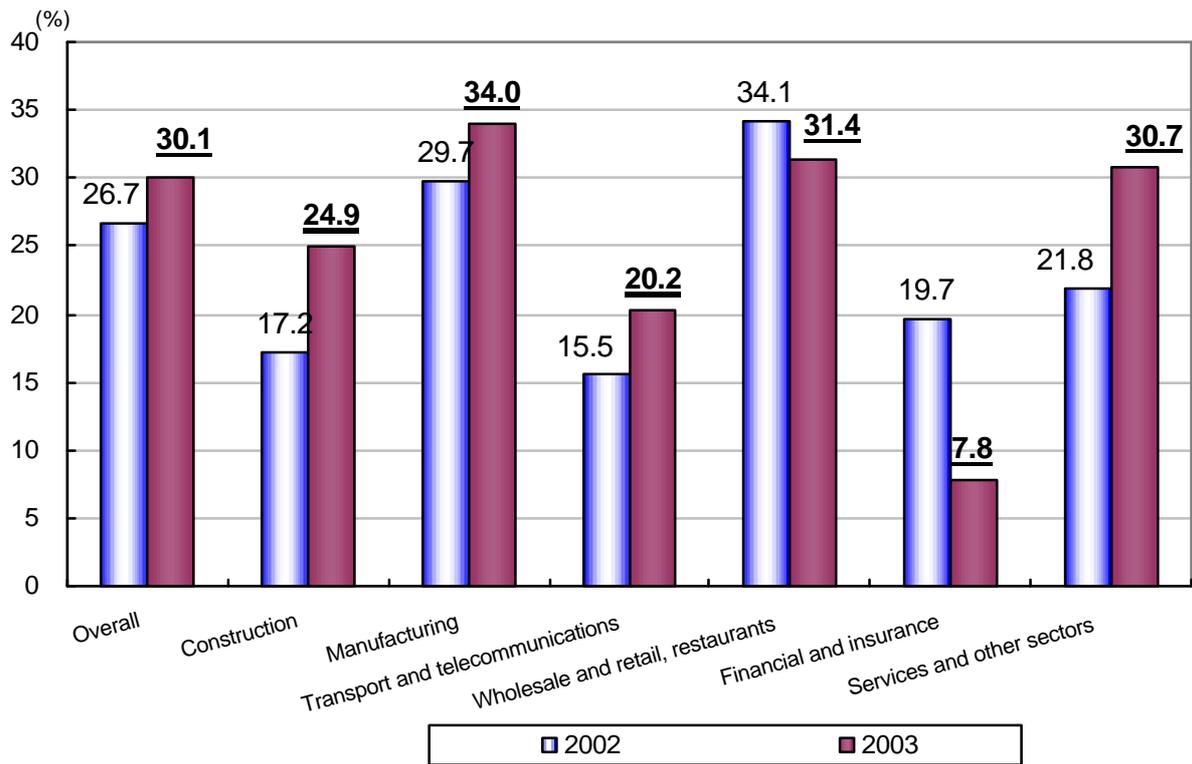


- Implementation of E-commerce by Corporations**
 30.1 percent of corporations responded that they had implemented B2B (business-to-business) commerce, while 11.5 percent said they had implemented B2C (business-to-consumer) commerce. By industry, *manufacturing* firms were the most likely to have implemented B2B (34.0 percent), while *financial and insurance* firms were at the forefront of B2C implementation (25.7 percent).

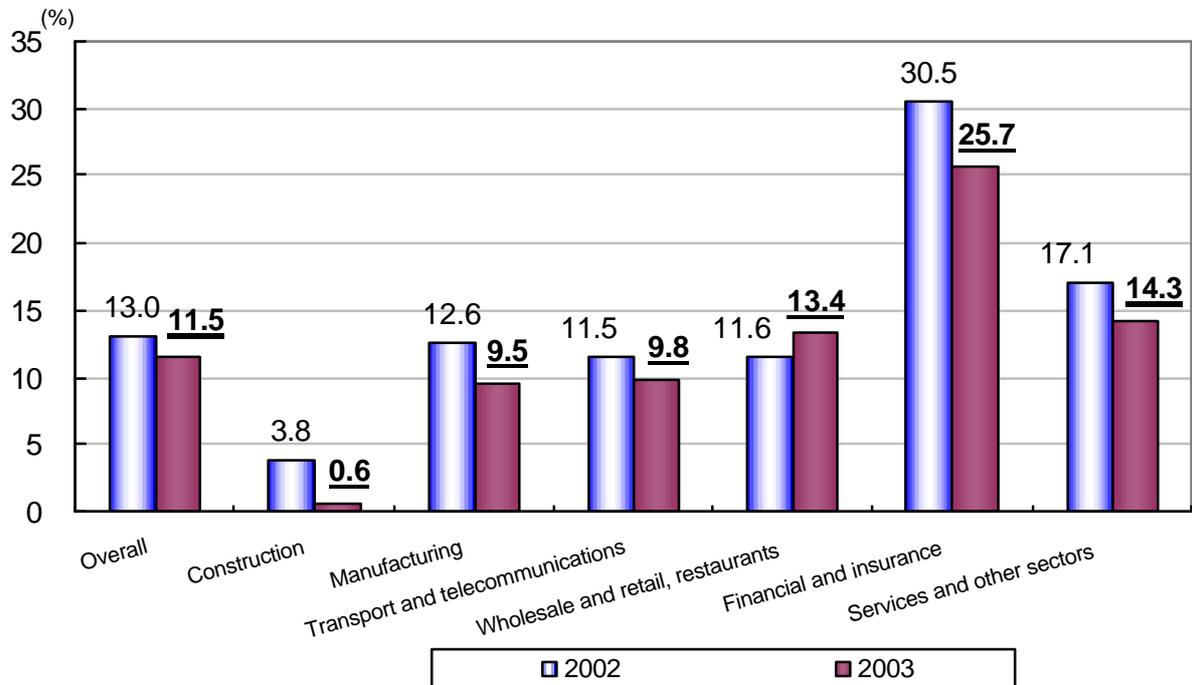
Percentage of Corporations with E-commerce Operations (multiple answers permitted)



Rate of E-commerce Operations by Industry (multiple answers permitted)
< B2B >



< B2C >



- **Telework Adoption by Corporations**

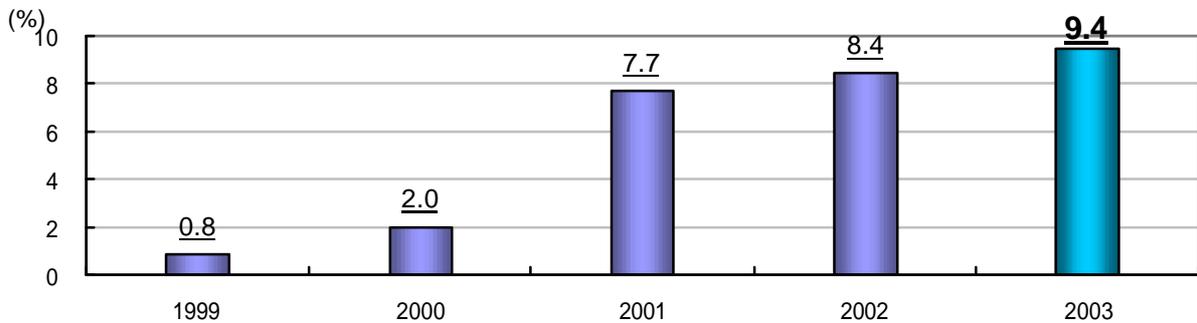
The percentage of corporations adopting telework rose 1.0 percentage points over 2002 to 9.4 percent.

In terms of the percentage of teleworkers to regular employees in corporations that had introduced telework, the most common response was less than 5 percent. Nevertheless, the number of respondents answering 10 percent to less than 30 percent was also high (31.8 percent).

The number one purpose for introducing telework was improve efficiency (productivity) of routine operations (61.1 percent). The second most frequent answer was reduce travel times for workers (40.8 percent).

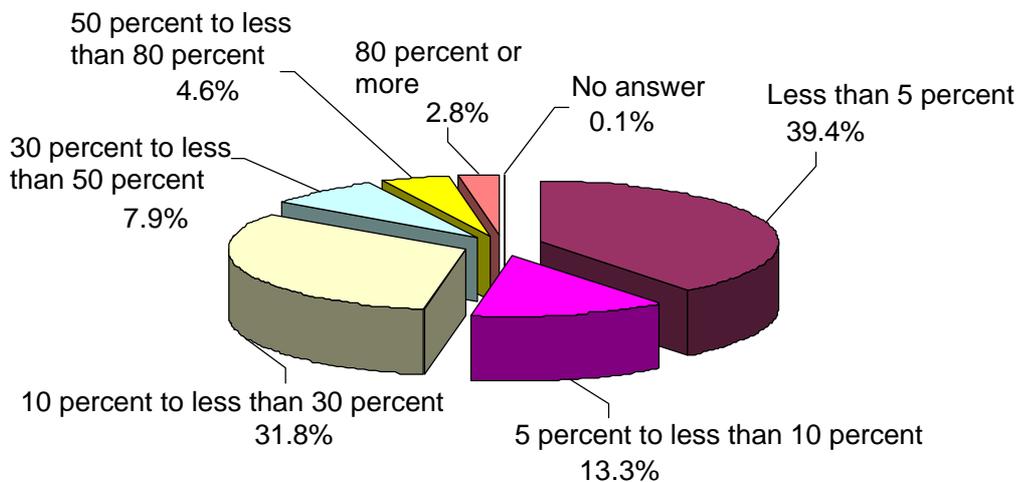
As for the effectiveness of telework, 97.0 percent of telework-adopting corporations replied telework had a *positive effect*.

Adoption Rate of Telework by Corporations

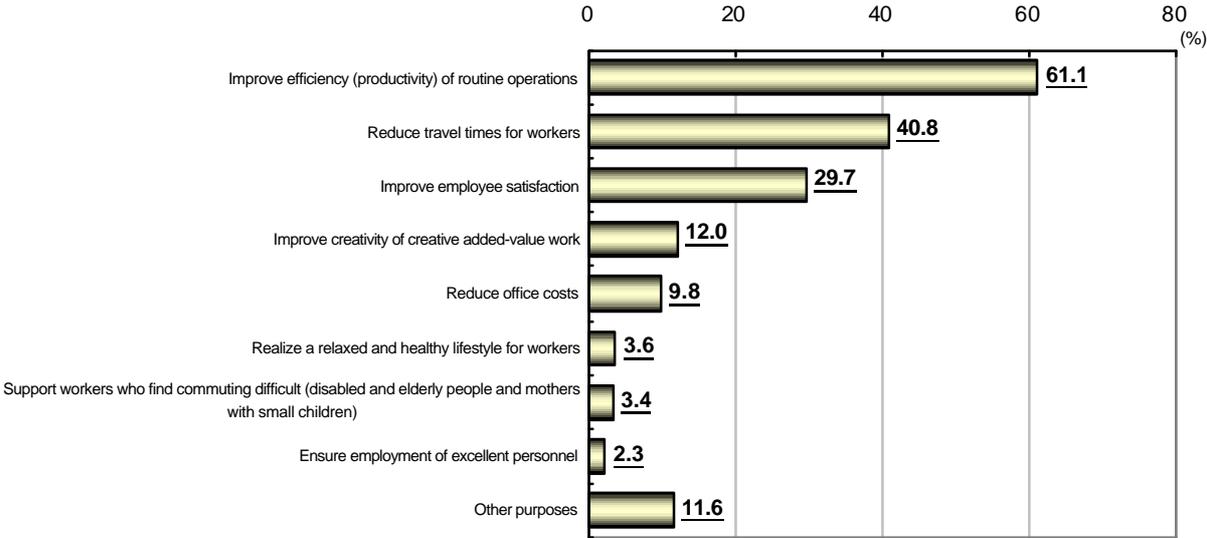


Note: Telework refers to a work situation in which employees work at a location away from their company's own offices while using a communication network to perform the same tasks as in an office. Telework includes working at home, mobile work (work, especially sales, performed while moving between locations), and satellite offices (a situation where work is performed in a separate building from the company's own buildings).

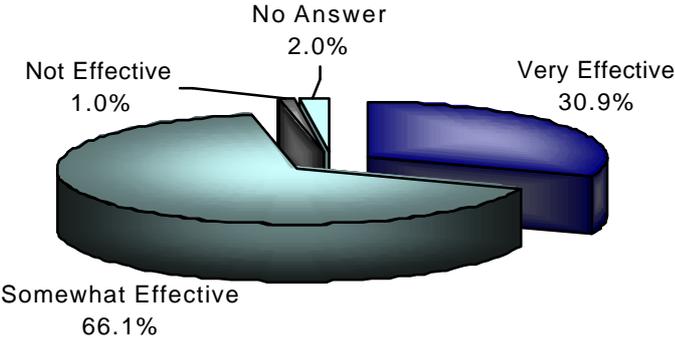
Percentage of Teleworkers



Purpose of Adopting Telework (multiple answers permitted)



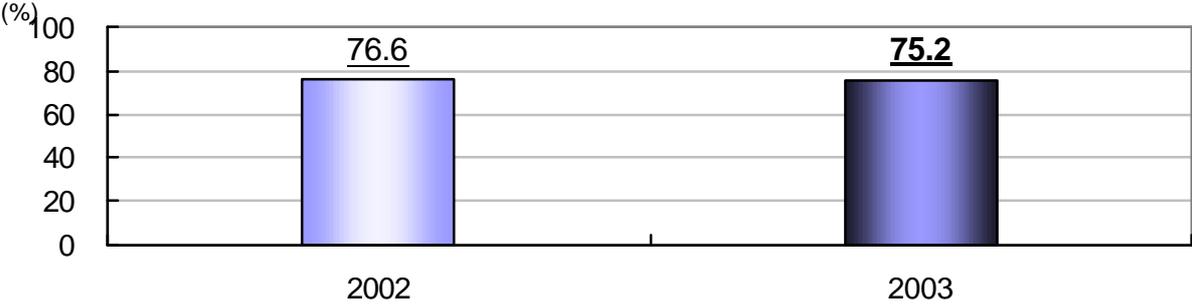
Effect of Telework Introduction



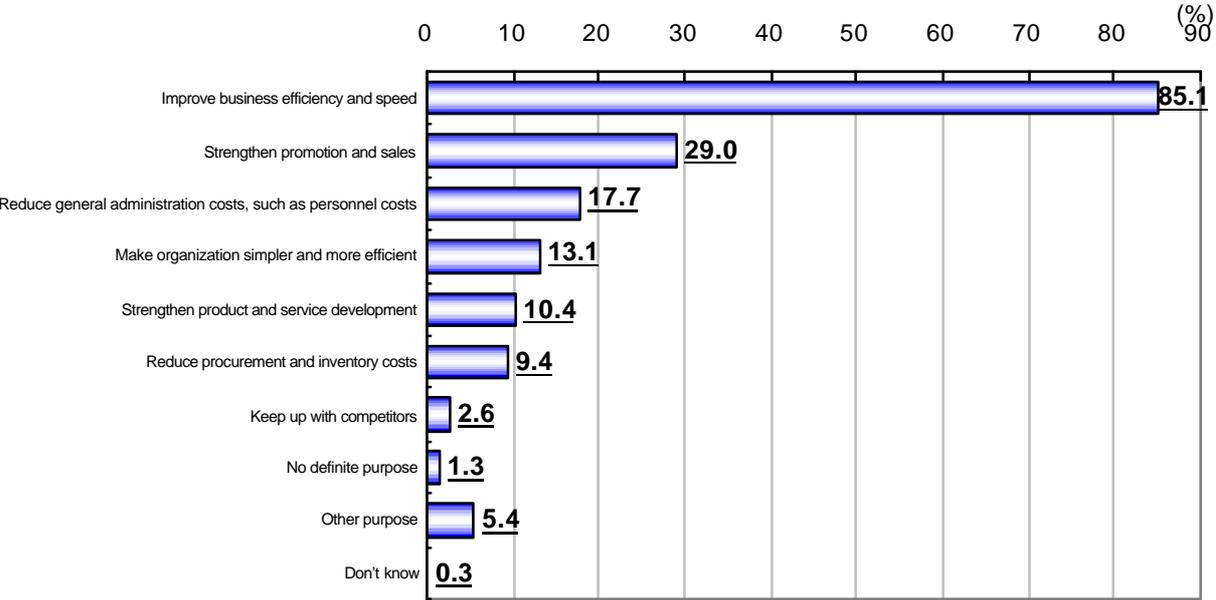
2 State of Corporate IT Investment

- **IT Investment by Corporations**
75.2 percent of corporations said they had invested in computers and other IT equipment over the last year.
The most common purpose of IT investment given was improve business efficiency and speed (85.1 percent).

IT Investment of Corporations (over the last year)



Purpose of IT Investment by Corporations (multiple answers permitted)

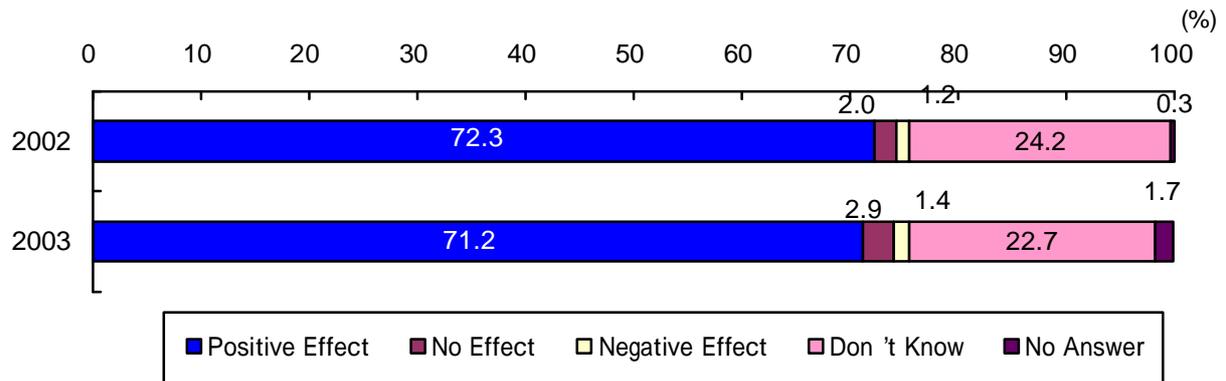


• Beneficial Effects of Corporate IT Investment

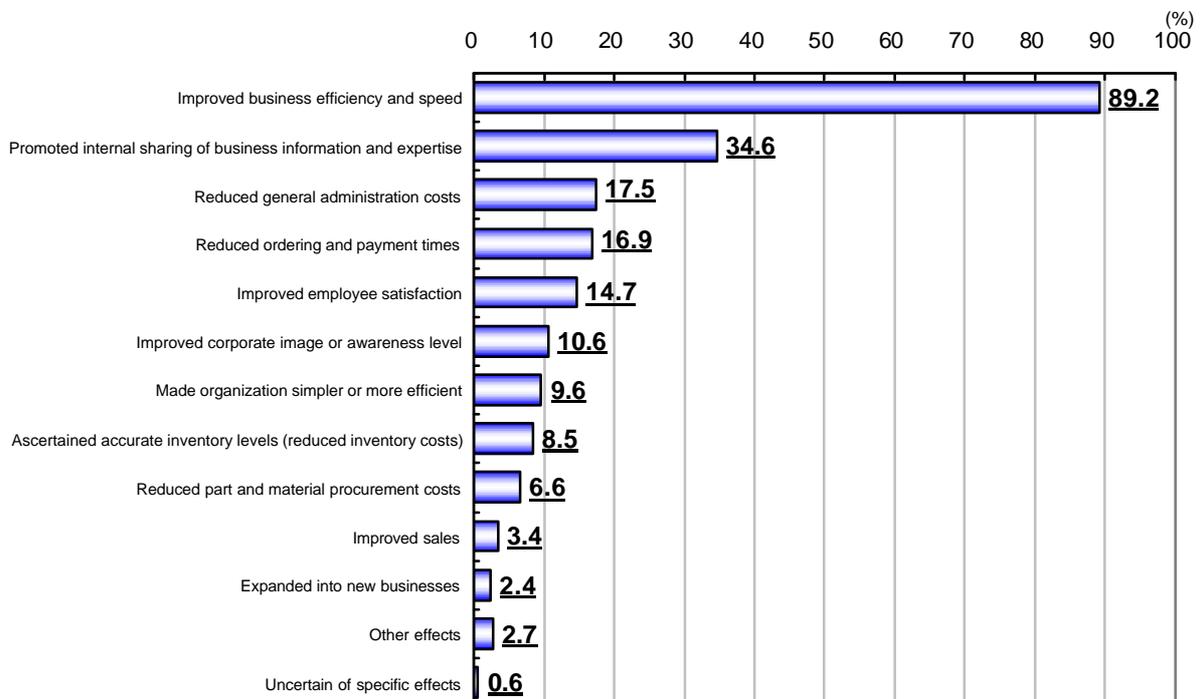
71.2 percent of corporations said that IT investments had a positive effect on their business.

Of these effects, *improved business efficiency and speed* was the most common response (89.2 percent) followed by *promoted internal sharing of business information and expertise* (34.6 percent).

Business Effects of IT Investment



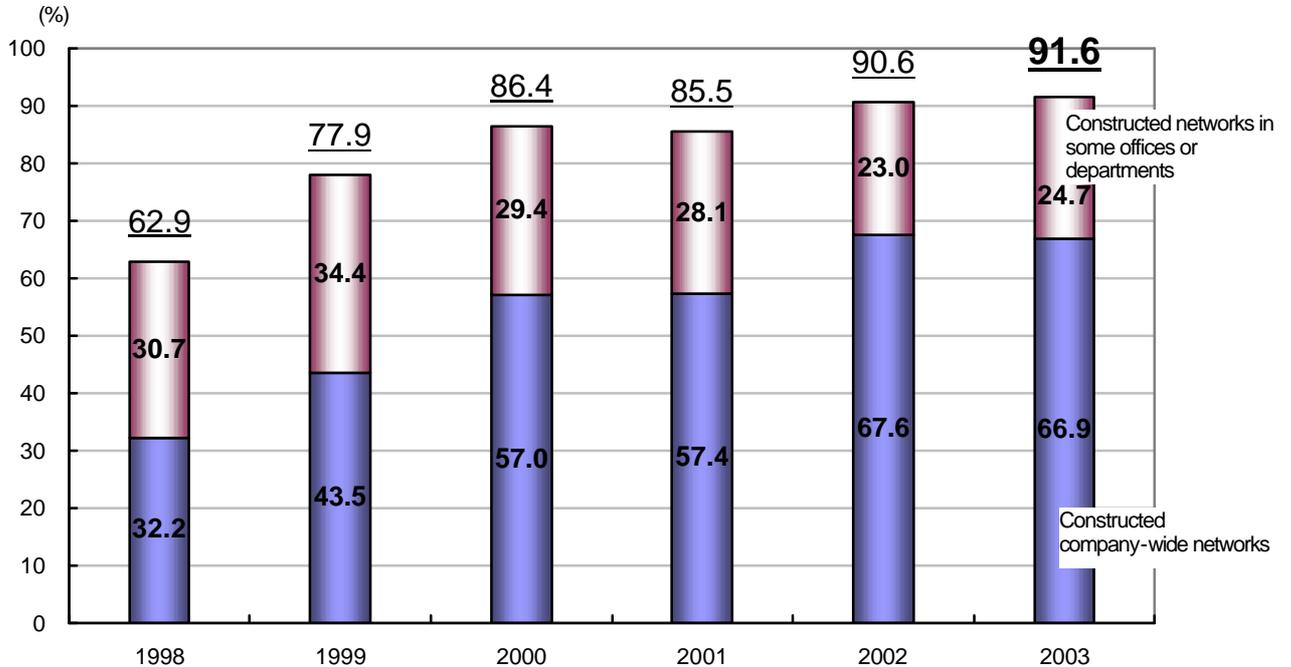
Breakdown of IT Investment Benefits (multiple answers permitted)



3 State of Corporate Network Installations

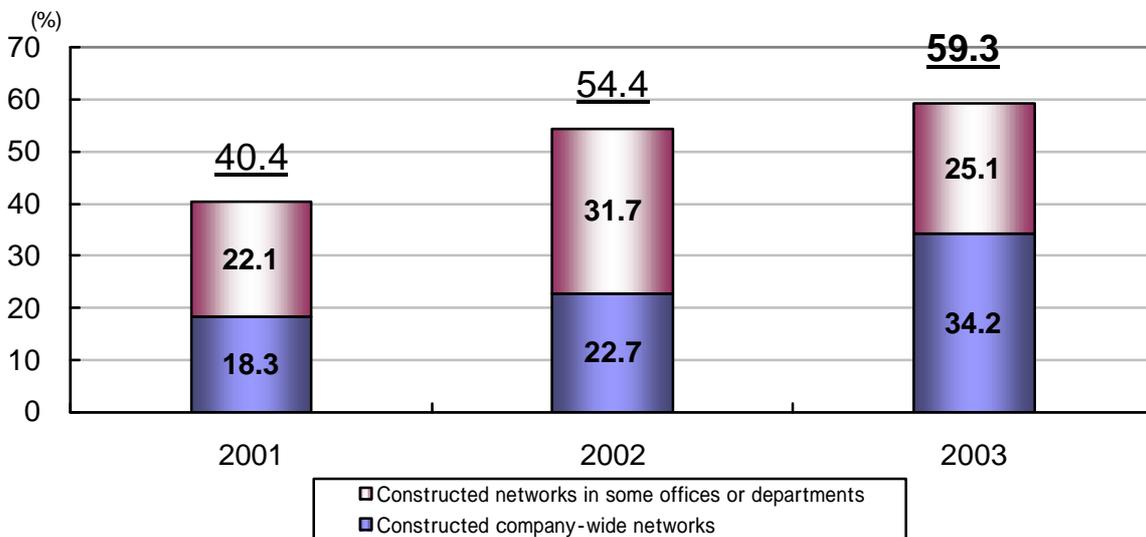
- **Construction of Corporate Intranets (LAN)**

91.6 percent of corporate respondents have constructed corporate intranets.



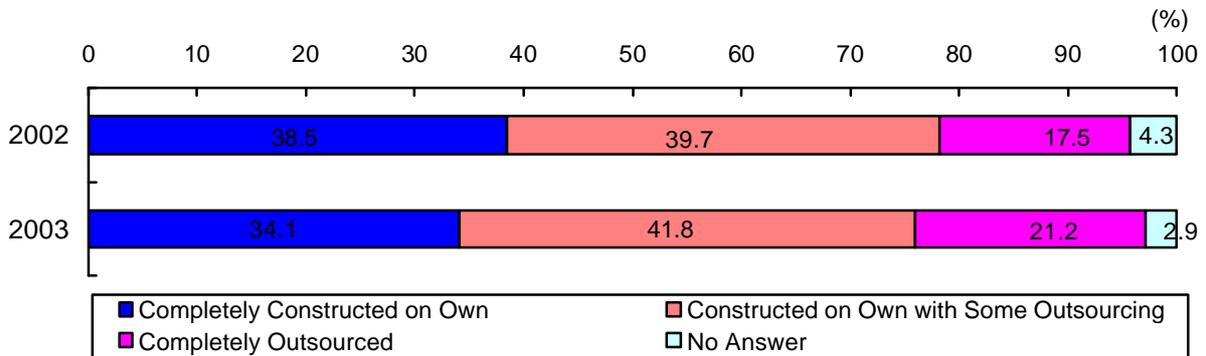
- **Construction of Inter-Corporate Networks (WAN)**

Surveyed corporations indicating they have constructed inter-corporate networks rose 4.9 percentage points from 2002 to 59.3 percent. For the first time, the number of corporations replying *constructed company-wide networks* overtook those answering *constructed networks in some offices or departments*.



• **Methods of Constructing Corporate Networks**

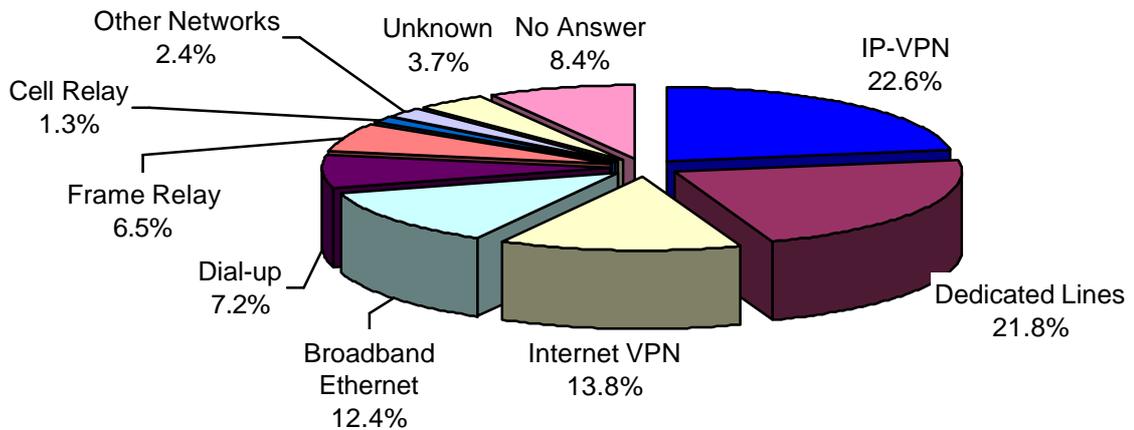
With the continuing move to outsourcing, those surveyed corporations either *completely* or *partially* outsourcing the construction of networks rose 5.8 percentage points from 2002 to 63.0 percent.



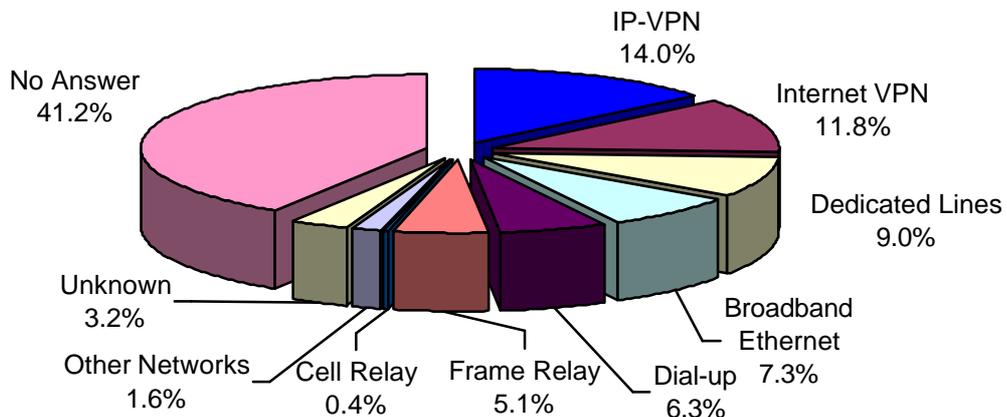
• **Communication Services Used for Corporate Networks**

The most common service used for both backbone systems and feeder systems is *IP-VPN*.

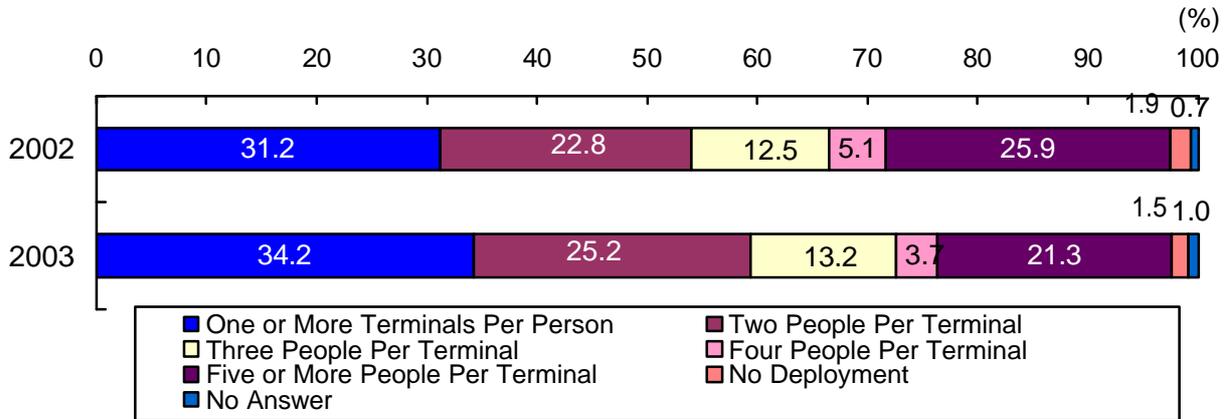
< **Backbone Systems** >



< **Feeder Systems** >

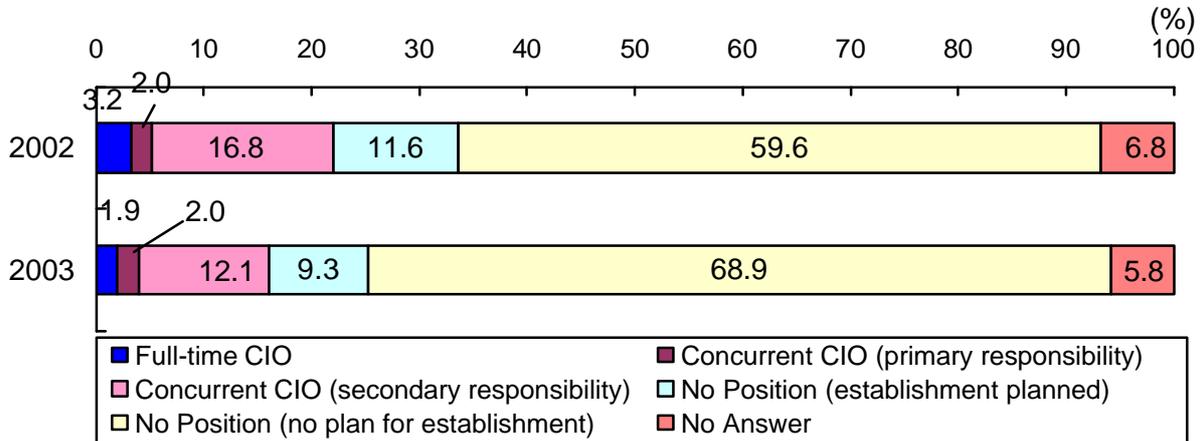


- **Deployment of Terminals Connected to the Internet or Corporate Networks**
The No. 1 response was *one or more terminals per person* (34.2 percent). This marks a continued progression to one person/one terminal.



4 IT Advancement and Organization of Corporations

- **Percentage of Corporations with a Chief Information Officer* (CIO) Position**
1.9 percent of surveyed corporations indicated that they have established a *full-time* CIO. When *concurrent* CIO posts are included, the establishment rate reaches 16.0 percent.



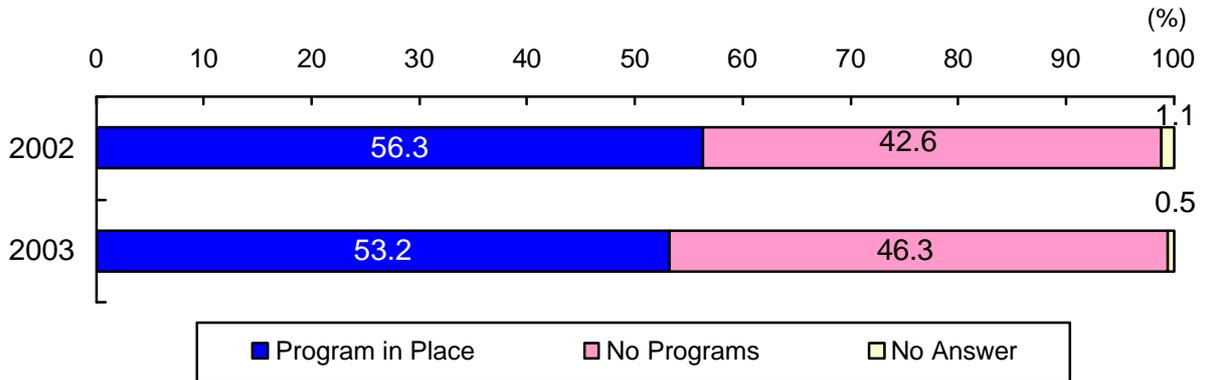
*CIO: An executive who coordinates and integrates business strategy and info- communication strategy

- **IT Training for Employees by Corporations**

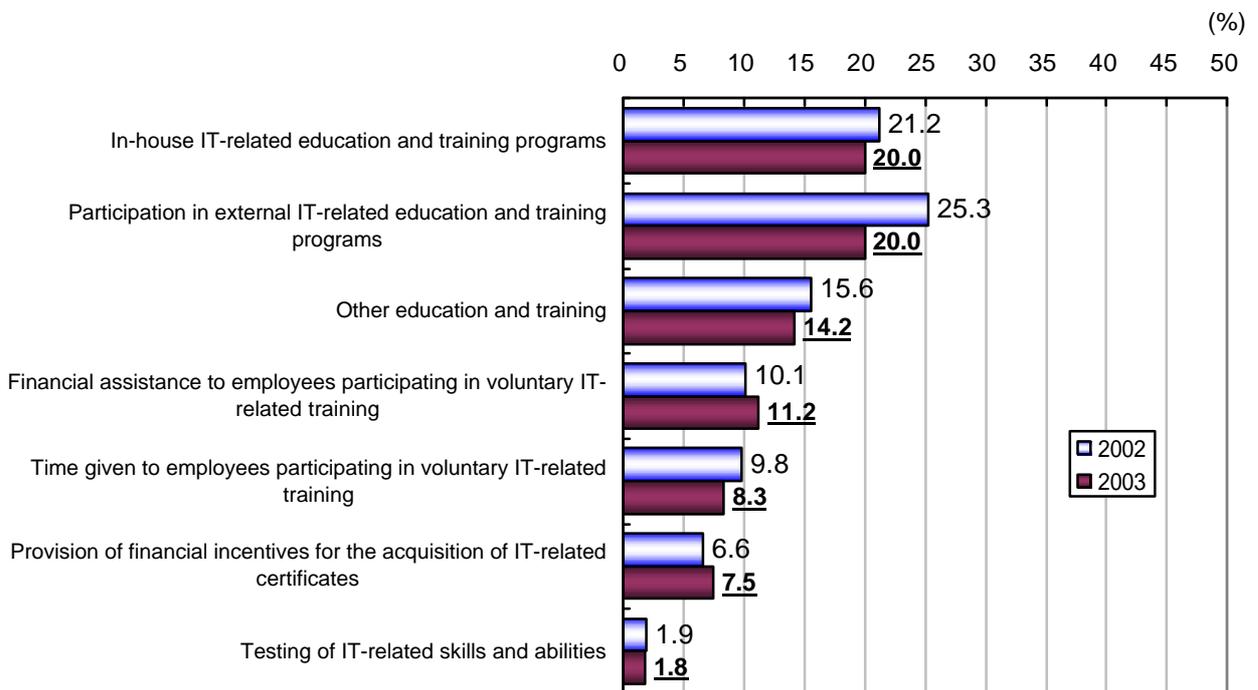
53.2 percent of corporations said they have instituted IT training. As in 2002, slightly more than half of surveyed corporations have IT training programs. Participation in *external* or *in-house* IT-related education and training programs was the most common type of training.

IT Training for Employees (multiple answers permitted)

< Presence of IT Training Programs >



< Types of IT Training >



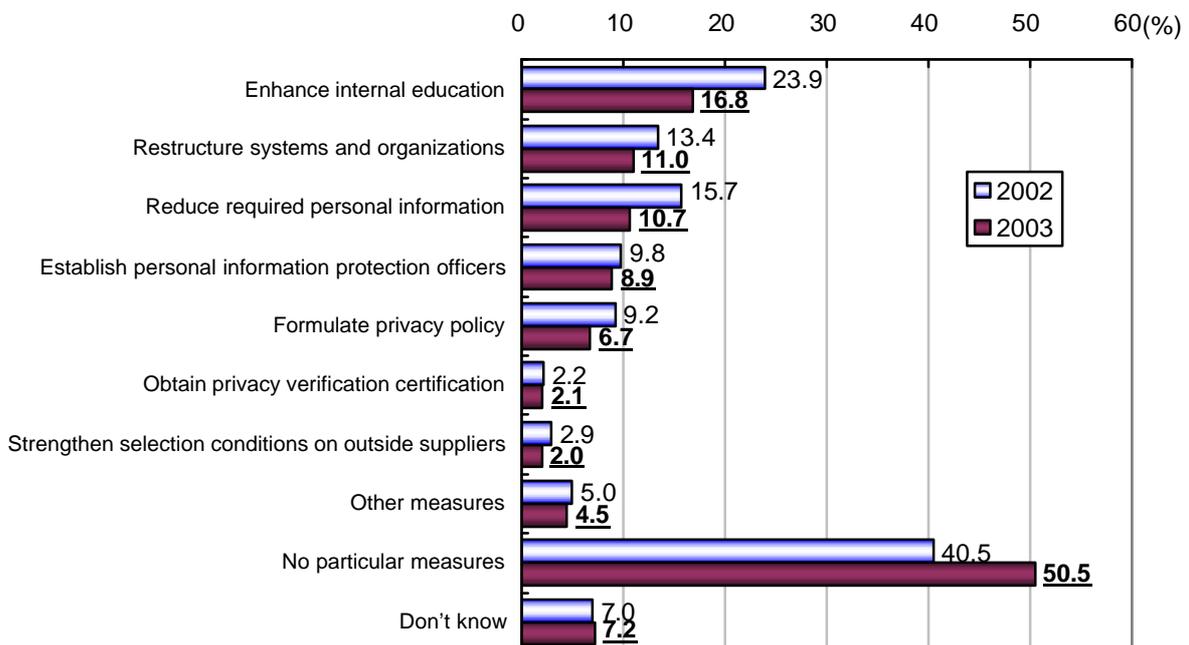
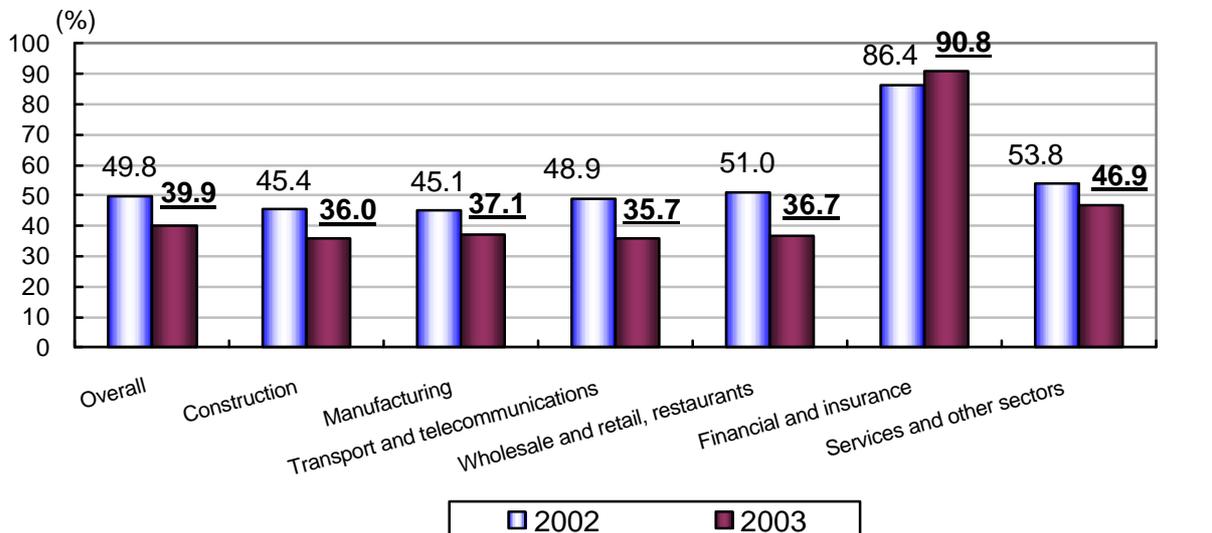
5 Implementation State of Personal Information Protection Measures by Corporations

- Implementation of Personal Information Protection Measures by Corporations**
 39.9 percent of corporations from all industries said they have implemented some form of personal information protection. This represents a slight retrogression, as the rate fell 9.8 percentage points from 2002.

By industry, *financial and insurance* corporations were the most likely to implement protection measures (90.8 percent).

The most common protection measure given by respondents was *enhance internal education* (16.8 percent) followed by *restructure systems and organizations* (11.0 percent).

Breakdown of Personal Information Protection Measures (multiple answers permitted)

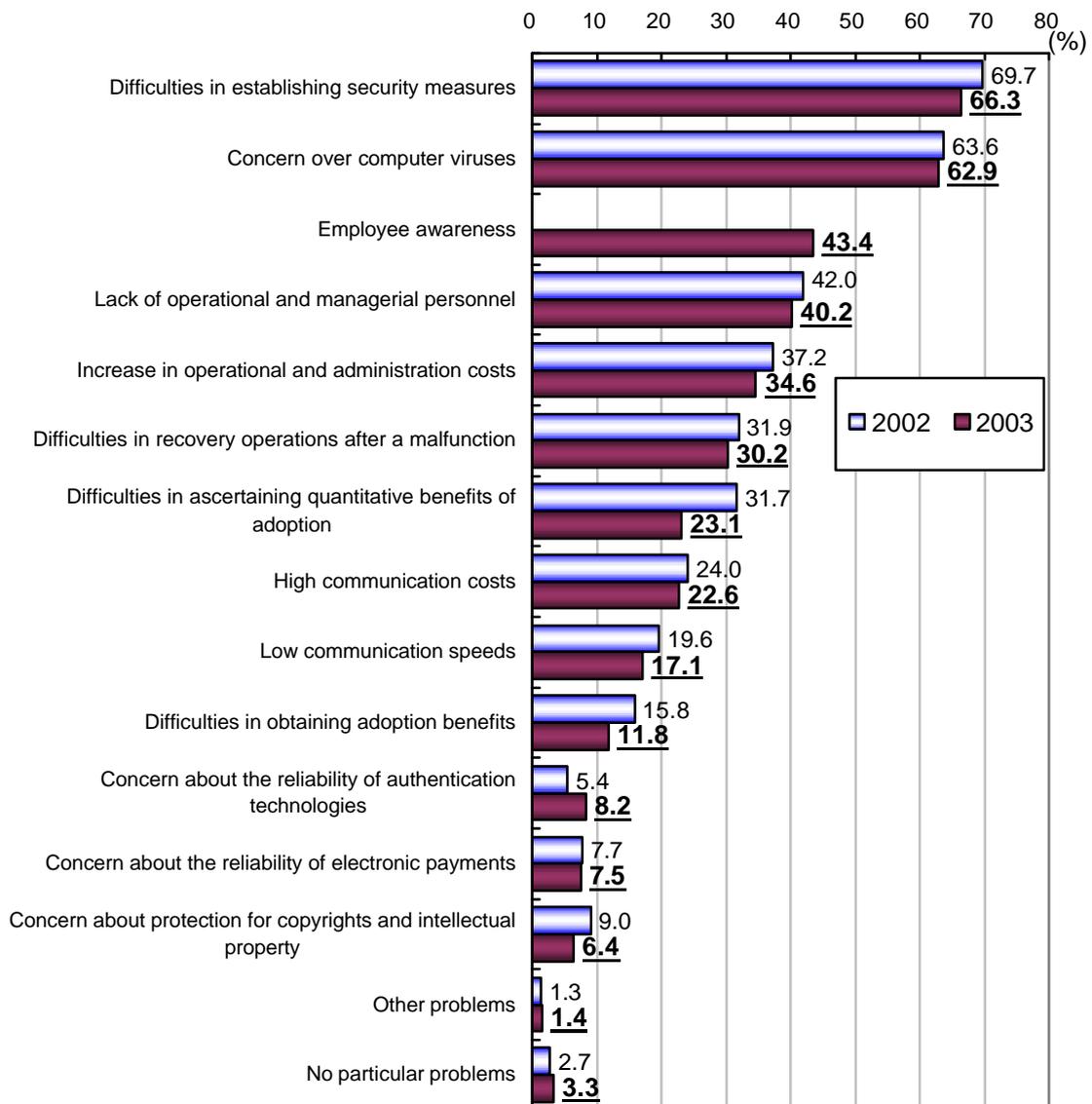


6 Problems with Info-communication Network Usage in Corporations

- **Problems with or Problems Deterring Info-communication Network Usage in Corporations**

The most common response was *difficulties in establishing security measures* (66.3 percent) followed by *concern over computer viruses* (62.9 percent). Security-related problems topped the list, but many corporations also voiced personnel problems such as *employee awareness* and *lack of operational and managerial personnel*.

Problems Deterring Use of Info-communication Networks (corporate networks and the Internet) (multiple answers permitted)

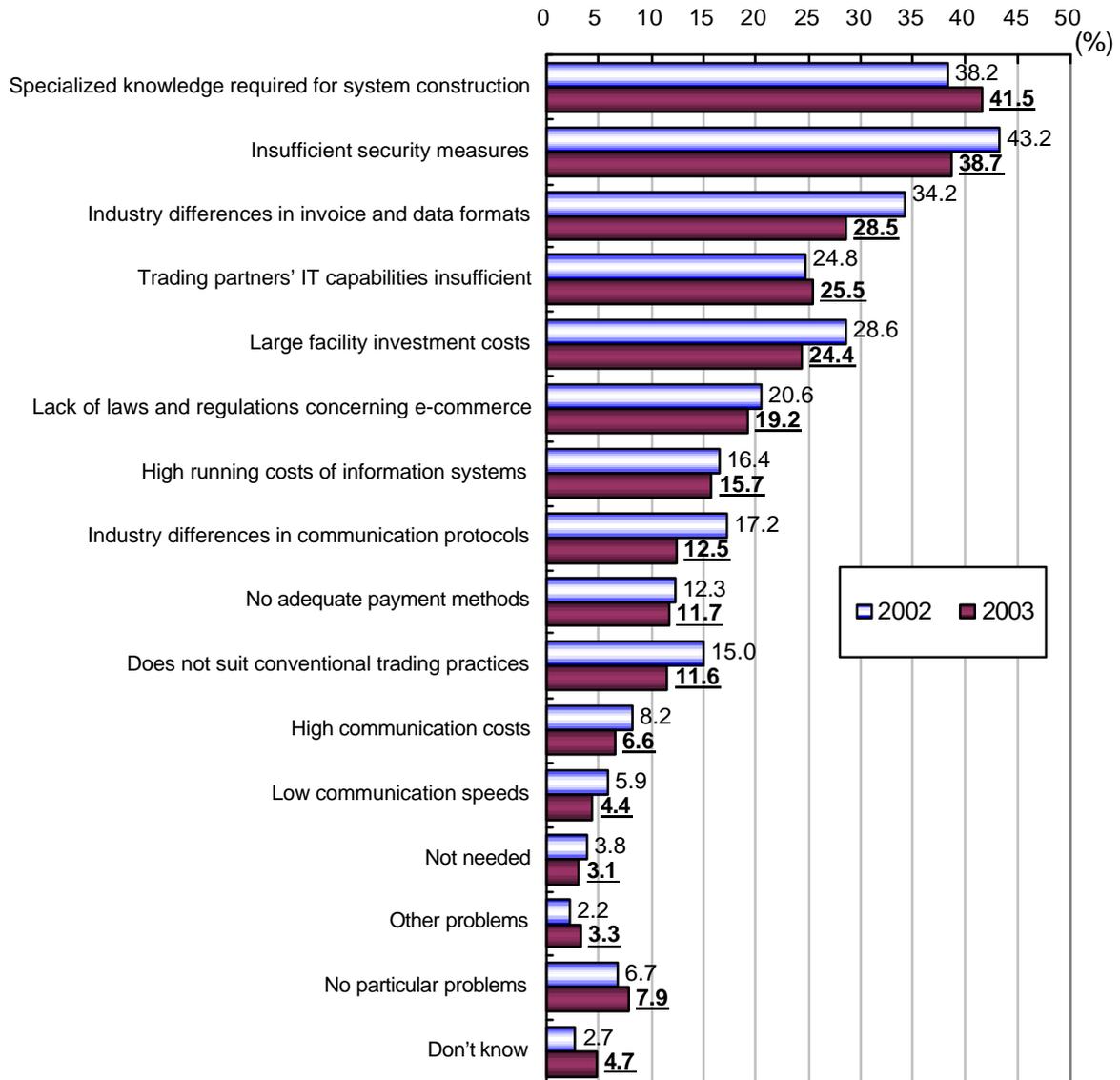


Note: The 2003 survey for the first time added the *employee awareness* option.

- **E-commerce Problems for Corporations**

The most frequent answer was *specialized knowledge required for system construction* (41.5 percent) followed by *insufficient security measures* (38.7 percent). After personnel and security concerns, problems related to trading environments, such as *industry differences in invoice and data formats* and *trading partners' IT capabilities insufficient*, topped the list.

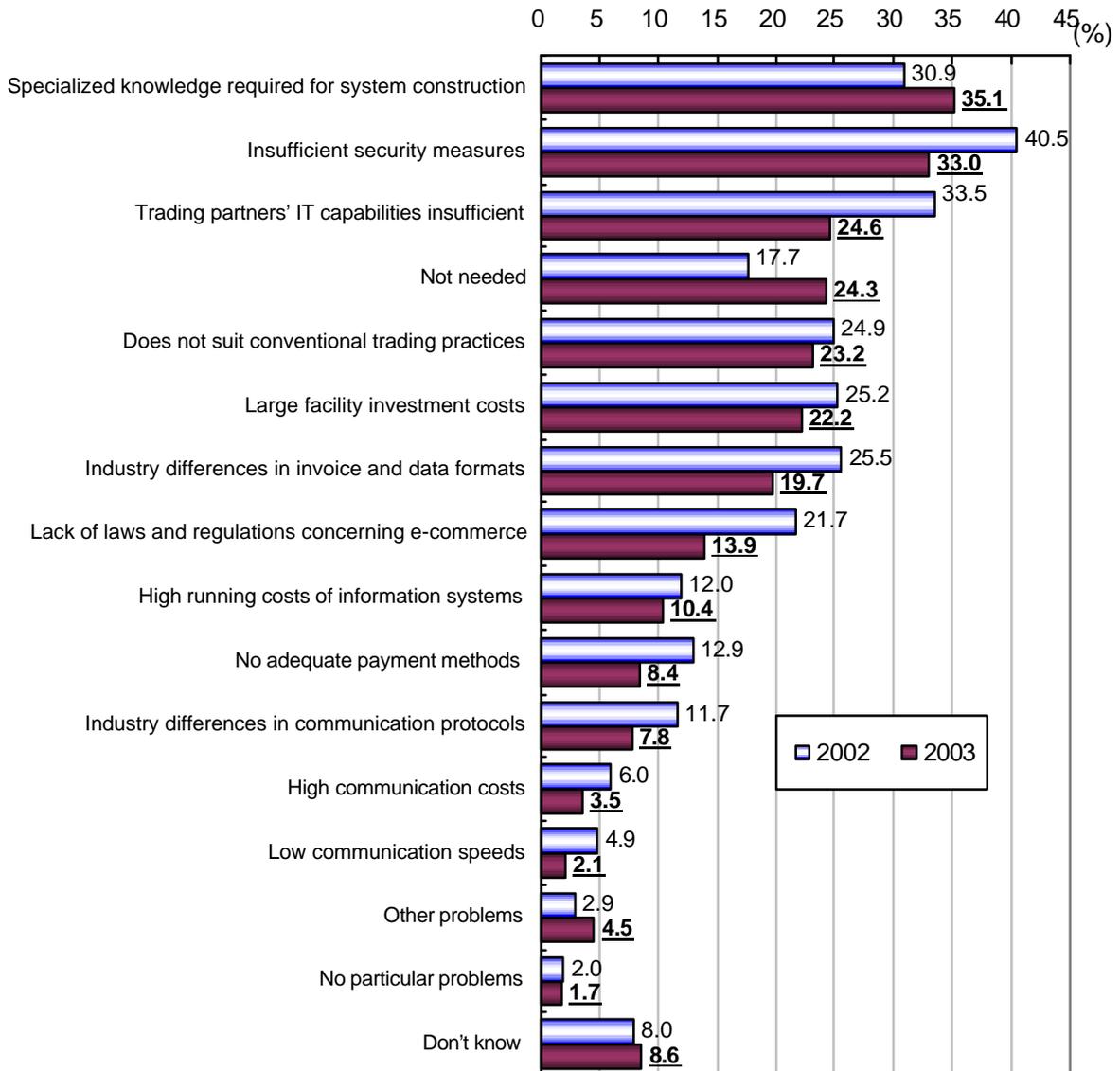
E-commerce Problems among Corporations with E-commerce Operations (multiple answers permitted)



• **Reasons for Not Adopting E-commerce in Corporations**

The most common answer was *specialized knowledge required for system construction* (35.1 percent), highlighting a lack of specialized personnel. The second most common answer was *insufficient security measures* (33.0 percent) followed by *trading partners' IT capabilities insufficient* (24.6 percent) and *not needed* (24.3 percent).

Reasons for Not Adopting E-commerce among Corporations without E-commerce Operations (multiple answers permitted)

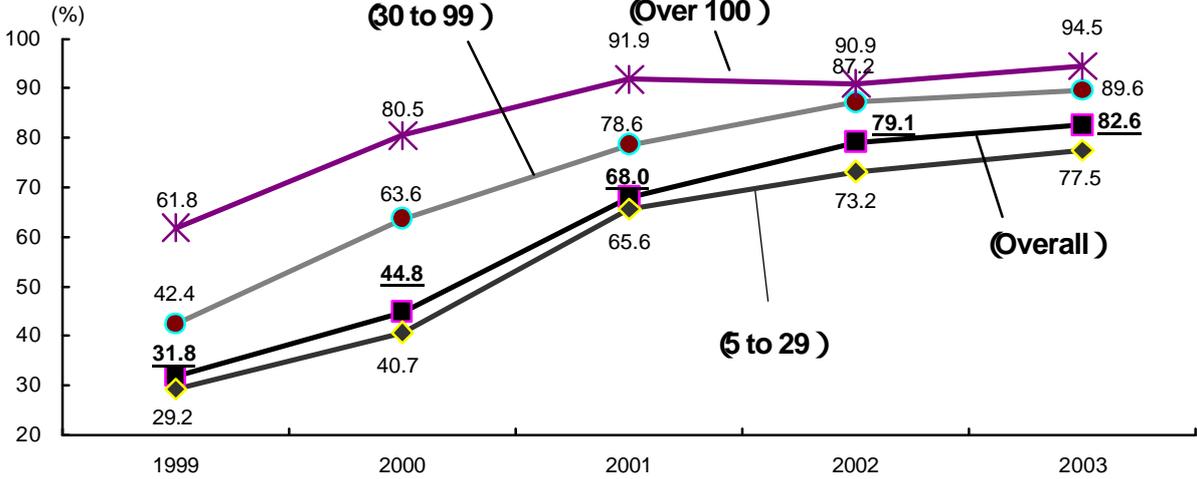


Additional Survey Results
(3) Offices

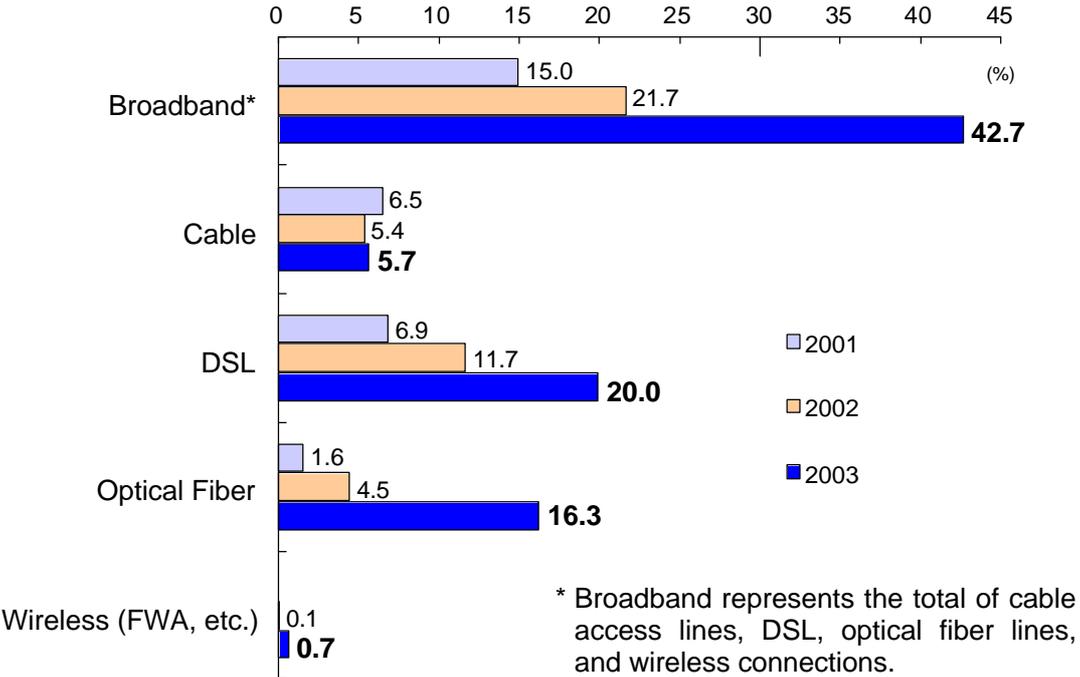
1 State of Office Internet Usage

- **Rate of Internet Usage in Offices**
 Regardless of the number of employees, offices' Internet usage is increasing.
 The fastest growing segment was offices with large numbers of employees.

Transitions in Internet Usage Rates in Offices (by number of employees)



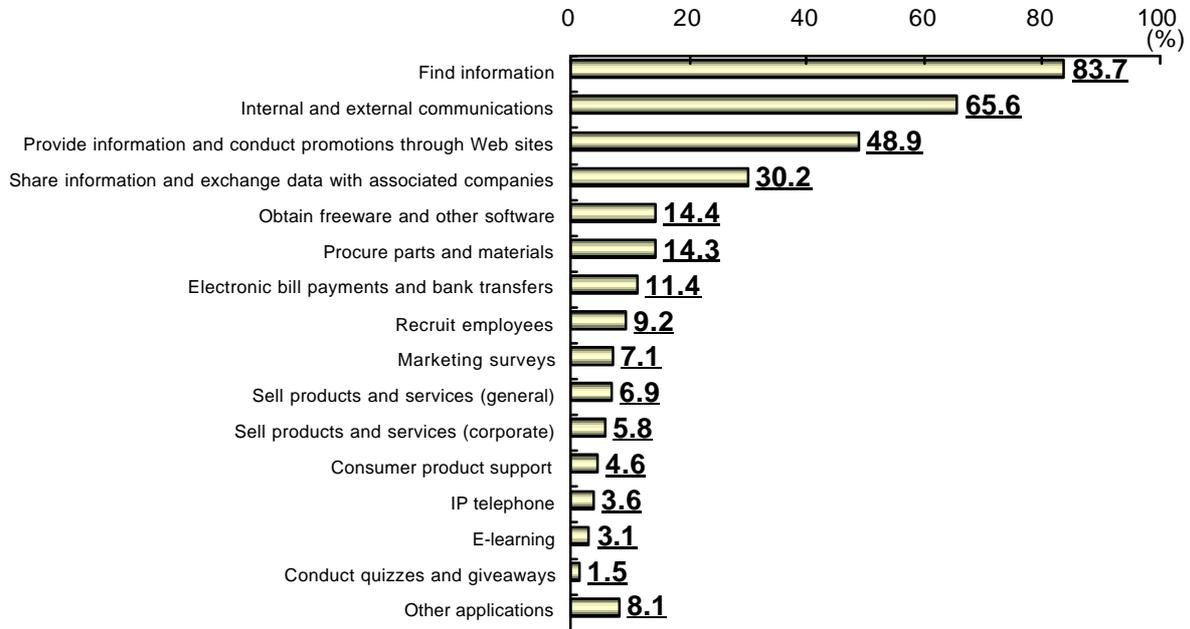
- **Types of Internet Access Lines in Offices**
 The percentage of offices using broadband access lines nearly doubled from 2002, jumping from 21.7 percent to 42.7 percent.



- **Office Internet Applications**

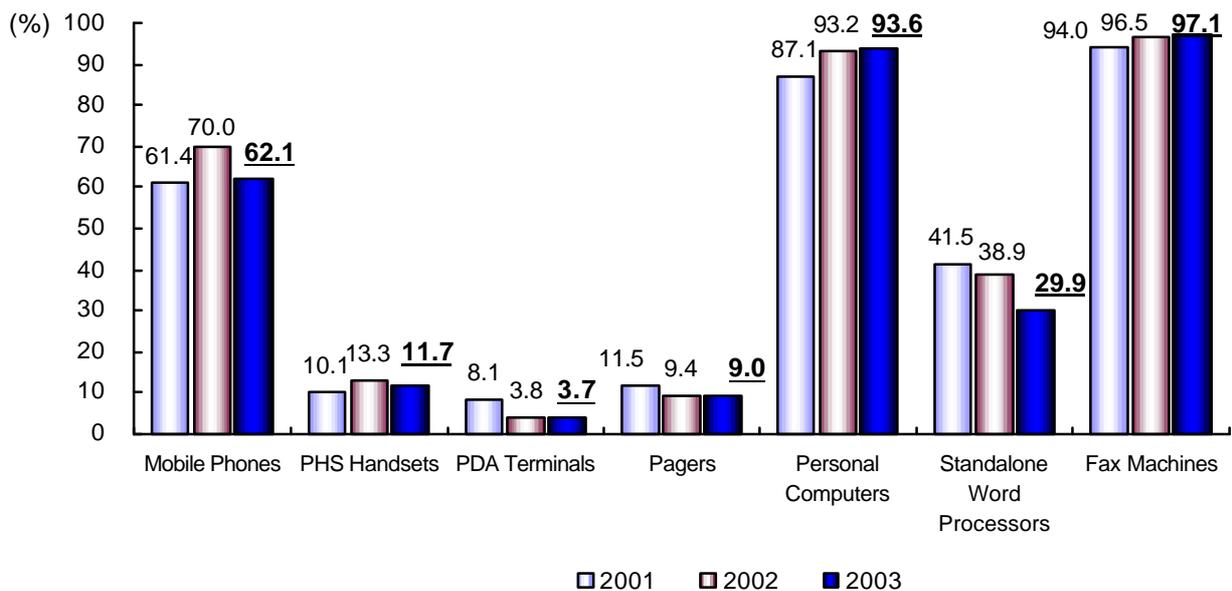
The No. 1 reply was find information (83.7 percent) followed by internal and external communications (65.6 percent).

Office Internet Applications (multiple answers permitted)



- **Info-communication Device Ownership in Offices**

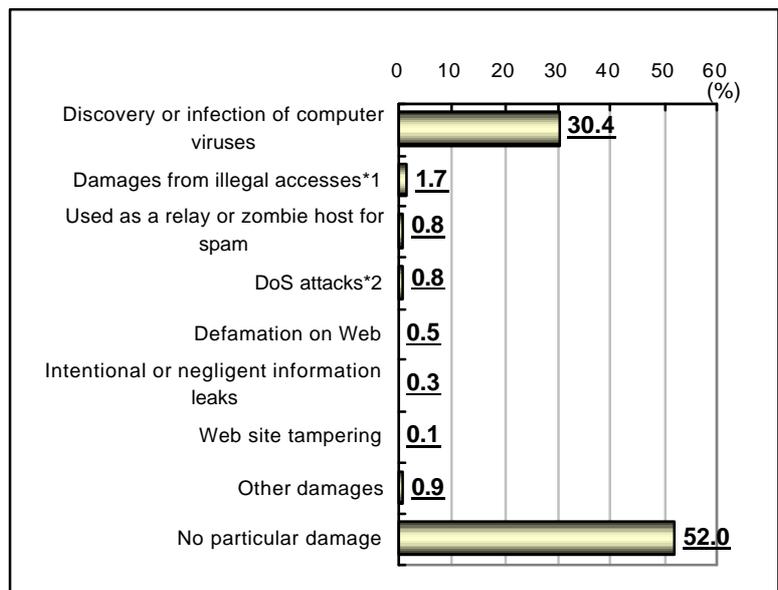
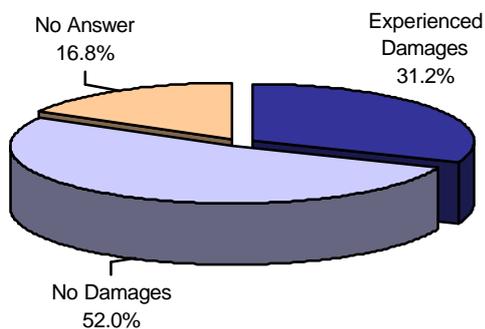
The percentage of offices owning personal computers was 93.6 percent, and 97.1 percent of offices reported owning fax machines.



2 Damages and Their Countermeasures Resulting from the Use of Office Info-communication Networks

- **Damages Resulting from the Use of Office Info-communication Networks**
31.2 percent of offices reported damages. The most common damage was *discovery or infection of computer viruses* (30.4 percent).

Occurrence of Damages and Types of Damages Resulting from the Use of Office Info-communication Networks (over the last year) (multiple answers permitted)



Note 1: Illegal access refers to the unauthorized accessing of office computer systems to disable the systems or use the systems for illegal uses.

Note 2: An attack that prevents the provision of services by flooding mail servers with e-mail causing the system to go down.

- **Implementation of Info-communication Network Security Measures in Offices**
The percentage of offices that have implemented network security measures rose 16.4 percent from 2002 to 66.9 percent.

