

June 7, 2024

Results of the Communication Usage Trend Survey of 2023

The Ministry of Internal Affairs and Communications (MIC) has compiled the results of a communication usage trend survey, which investigated the usage state of information and communications services in households and businesses at the end of August 2023.

The key findings of this survey are shown in Attachment 1 (PDF) and a summary in Attachment 2 (PDF).

The detailed survey results will be posted in the Information & Communications Statistics Database and e-Stat, and data on the posted content will be opened to the public in a data format suitable for machine-reading applications (in CSV).

(URL: <https://www.soumu.go.jp/johotsusintokei/statistics/statistics05.html>)

[Main points of this survey results]

- 1 Regarding household ownership of main information and communication devices, the percentage of respondents having smartphones has reached 90.6%, it has continued to rise. While the percentage of respondents having other information and communication devices has generally shown a downward trend.
- 2 The percentage of businesses introducing telework was about 50%, showing a downward trend from last year. “Improvement in the work-life balance of workers” and “Prepare for business continuity in the event of emergencies” have increased as the reasons to introduce telework.
- 3 The percentage of businesses using cloud services is about 80%, and the percentage of those that have introduced IoT and AI is 16.9%, both are showing an upward trend.
- 4 About 70% of Internet users feel some form of anxiety while using the Internet. When asked the reason for anxiety, the number of respondents stating, “Come across illegal / harmful or of uncertain authenticity information” significantly increased by as much as 8.1 points.

[Survey Outline]

The communication usage trend survey targets households (whole households and their members) and corporate. It has been conducted as a general statistical survey based on the Statistics Act (Act No. 53 of 2007) every year since 1990 (the corporate survey was added in 1993 and has been conducted every year since then except 1994. The household members survey has been conducted since 2001). In addition, the households survey has targeted on a prefecture-by-prefecture basis since 2010.

	Household survey	Corporate survey
Time of survey	End of August 2023	
Areas surveyed	Nationwide	
Range of attributes and survey units	Each household where the head of the household is 20 years of age or older (as of April 1, 2023) And its members aged six or older	Companies with 100 permanent employees or more, excluding those engaged in public businesses

Number of samples (Number of valid distributions)	40,592 households (39,297 households)	6,121 companies (4,715 companies)
Number of valid replies [percentage]	14,059 households (34,196 persons) [35.8%]	2,640 companies [56.0%]
Survey items	State of use of communications services, possession of information and communications devices, etc.	
Survey method	Questionnaires were distributed by mail and then collected either by mail or online (using email for each household and an electronic survey form for each business).	

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Highlights of the Communications Usage Trend Survey of 2023

<Survey Outline>

- MIC has conducted this survey annually since 1990, targeting households (households and household members) and businesses, as a general statistics survey in accordance with the Statistics Act (Act No. 53 of 2007). The survey looks into communication service usage, information and communication equipment ownership, etc. (Survey slips are sent by postal mail and collected by postal mail or online.)

The survey took place in late August 2023.

- The household survey targets households headed by householders aged 20 or older (as of April 1, 2023) and household members aged 6 or older (40,592 households).

- The business survey targets businesses with 100 or more regular employees in industries other than public affairs (6,121 businesses)

Highlights of the Survey

- Regarding household ownership of main information and communication devices, the percentage of respondents having smartphones has reached 90.6%, it has continued to rise. While the percentage of respondents having other information and communication devices has generally shown a downward trend.
- The percentage of businesses introducing telework was about 50%, showing a downward trend from last year. “Improvement in the work-life balance of workers” and “Prepare for business continuity in the event of emergencies” have increased as the reasons to introduce telework.
- The percentage of businesses using cloud services is about 80%, and the percentage of those that have introduced IoT and AI is 16.9%, both are showing an upward trend.
- About 70% of Internet users feel some form of anxiety while using the Internet. When asked the reason for anxiety, the number of respondents stating, “Come across illegal / harmful or of uncertain authenticity information” significantly increased by as much as 8.1 points.

<Notes>

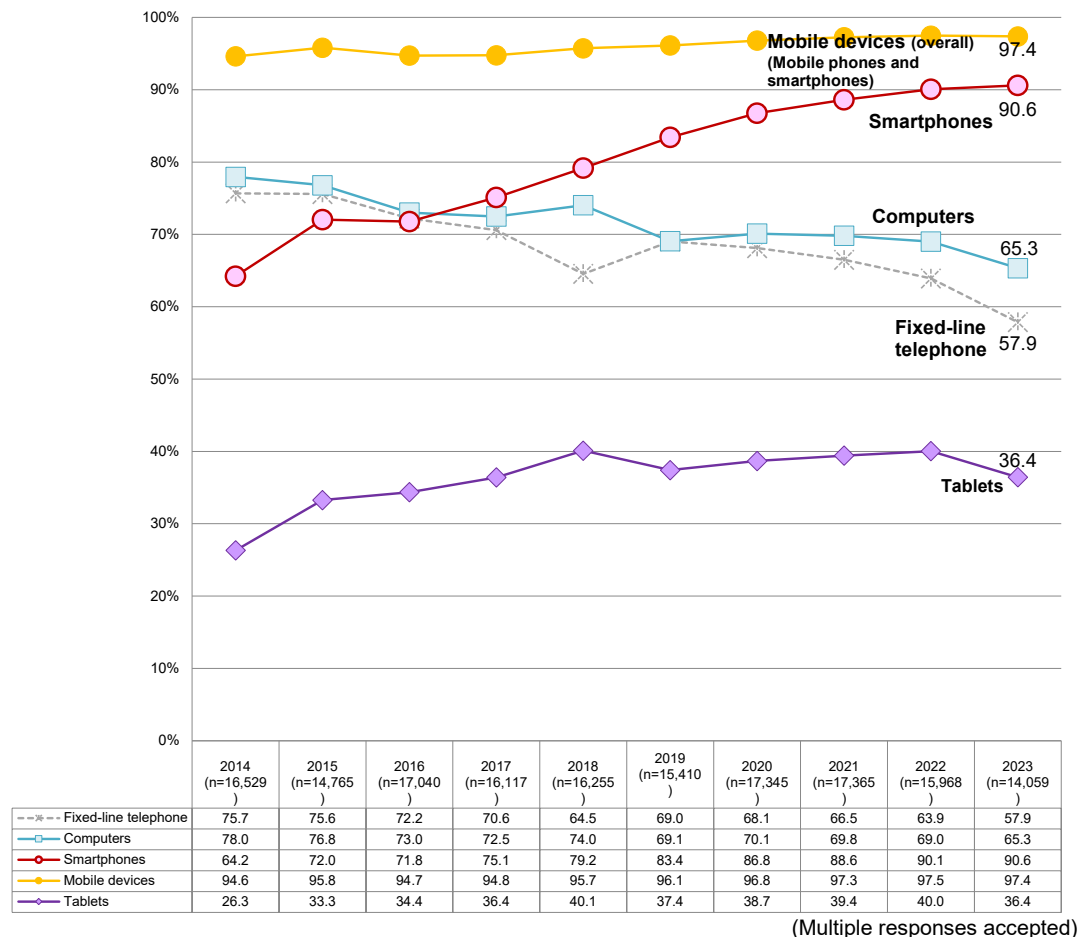
- Graphs with titles including (businesses) are based on the survey of businesses and colored orange. Those with titles including (households) are based on the survey of households, and including (individuals) are based on the survey of household members. Both (households) and (individuals) are colored blue.
- Non-responses were excluded except in the graphs of “1. Proliferation of Communication Devices” in Page 2 and “Introduction of telework” in Page 5.
- Figures in the chart are rounded to the nearest unit, and individual figures may not add up to totals due to rounding.

1. Dissemination State of Information and Communication Devices

Ownership of common communication devices (households) (2014 - 2023)

The percentage of households with smartphones (90.6%) is over 90% and continues to increase.

On the other hand, personal computers (65.3%), tablets (36.4%), and landline telephones (57.9%) are declining.

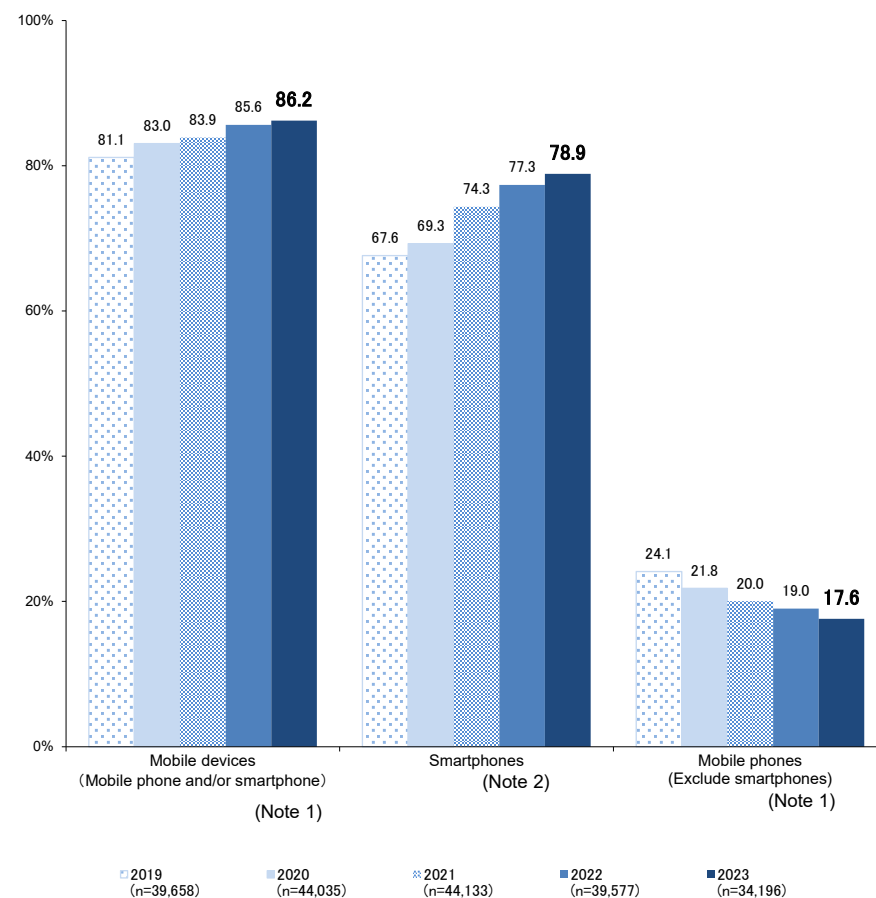


(Note) Each figure is the percentage of all households in each year's survey that own the respective communication device.

"Mobile devices (overall)" include PHS handsets before 2020.

Ownership of mobile devices (individuals) (2019 - 2023)

The percentage of individuals owning smartphones (78.9%) is on the rise, while the percentage owning cell phones (excluding smartphones) (17.6%) is on the decline.



Note 1: "Mobile devices (overall)" and "cell phones (excluding smartphones)" include PHS handsets before 2020.

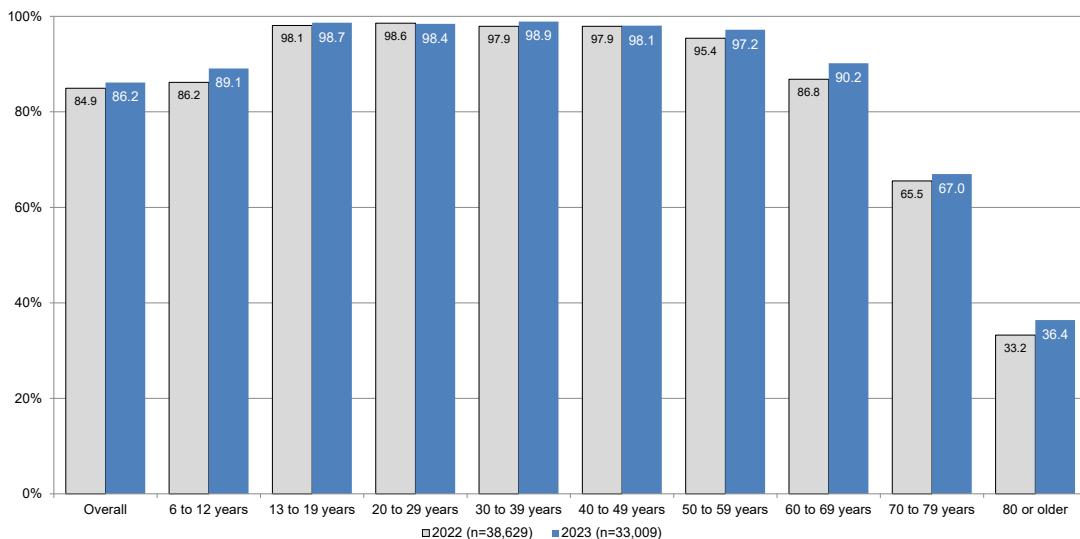
Note 2: Smartphones do not include 5G devices before 2020.

2. Internet Usage Trends (Individuals)

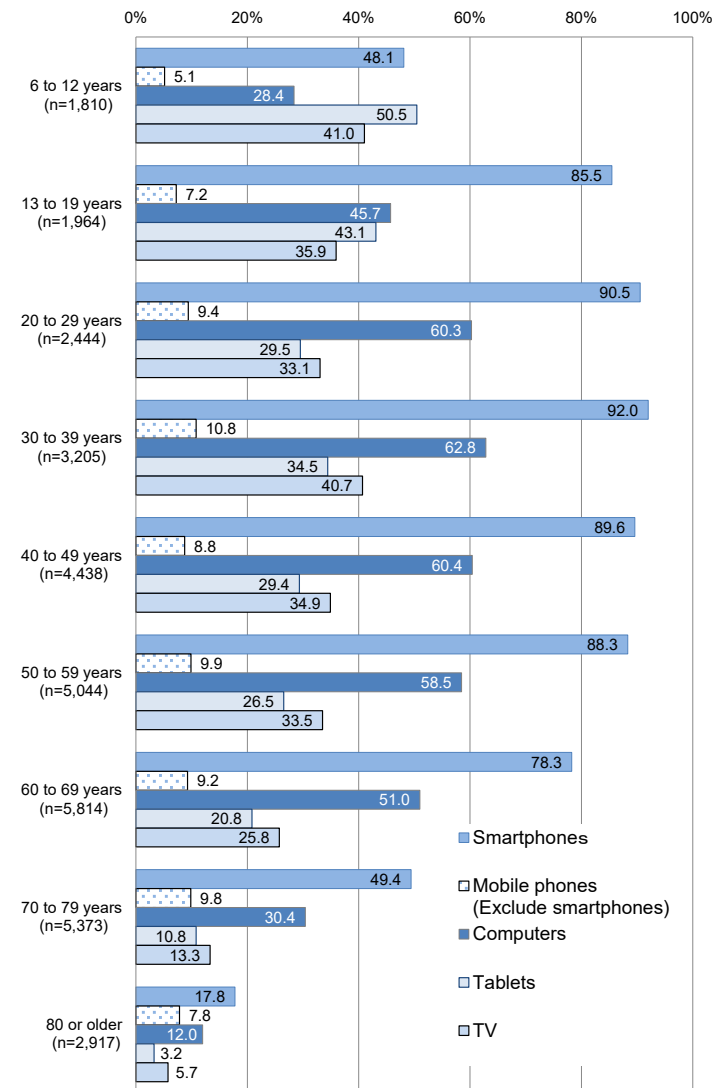
The percentage of individual Internet users exceeds 90% in each age group from 13 to 69 and is also rising in other age groups.

The use of smartphones as Internet access devices by individuals continues to rise, with approximately 90% in each age group from the 20-59 age group using them.

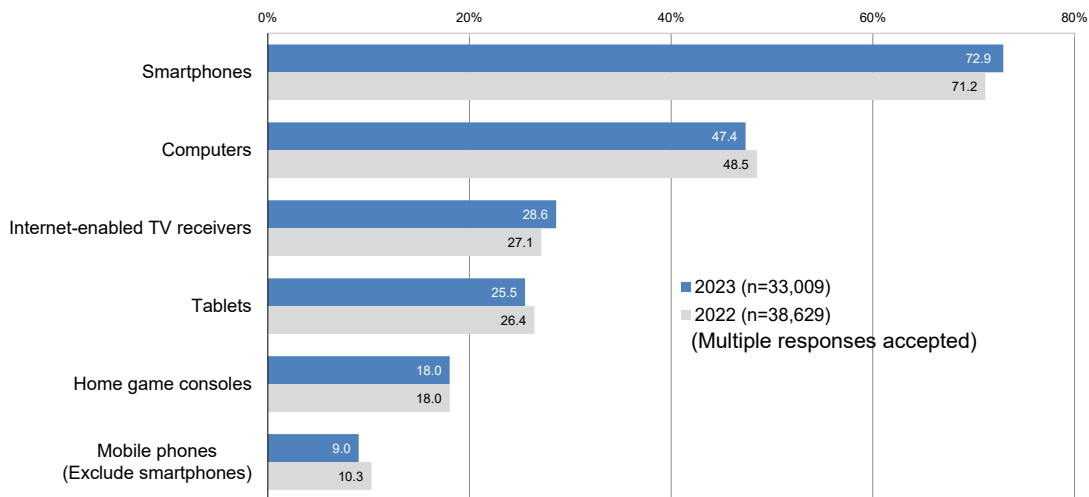
Internet usage state



Usage state of internet access devices by age group



Usage state of internet access devices



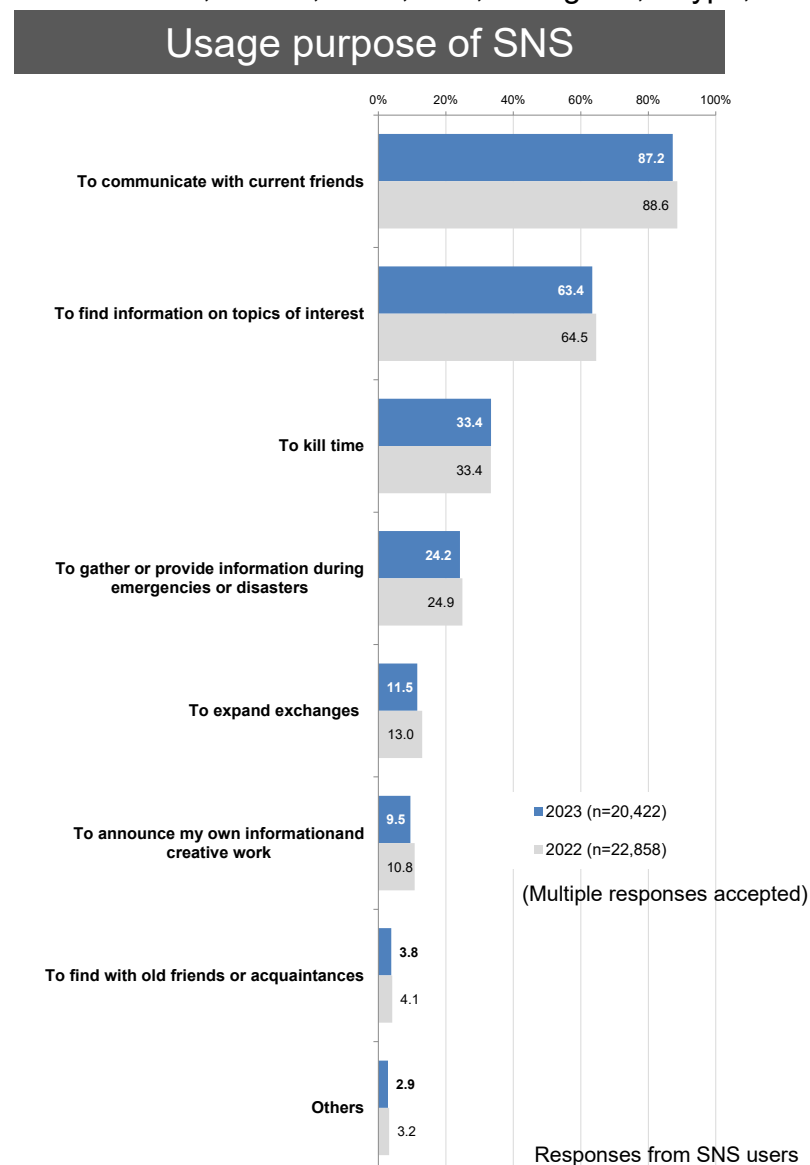
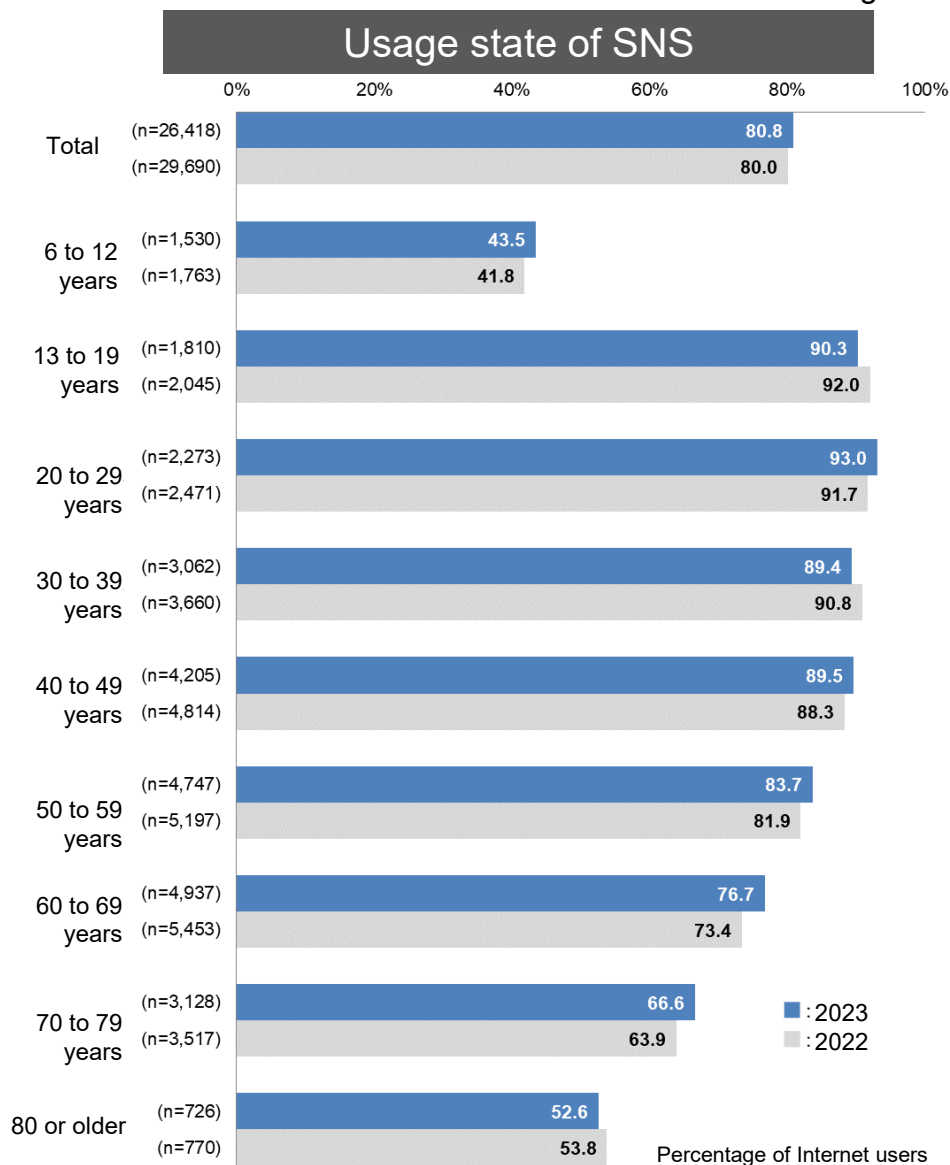
(Multiple responses accepted)
Note: Only major devices are covered

3. Social Networking Service Usage Trends (Individuals)

The overall percentage of individuals using social networking services^(Note) has remained almost flat.

The usage purpose has not changed significantly since the 2022 survey, with the highest percentage of respondents choosing “to communicate with current friends”.

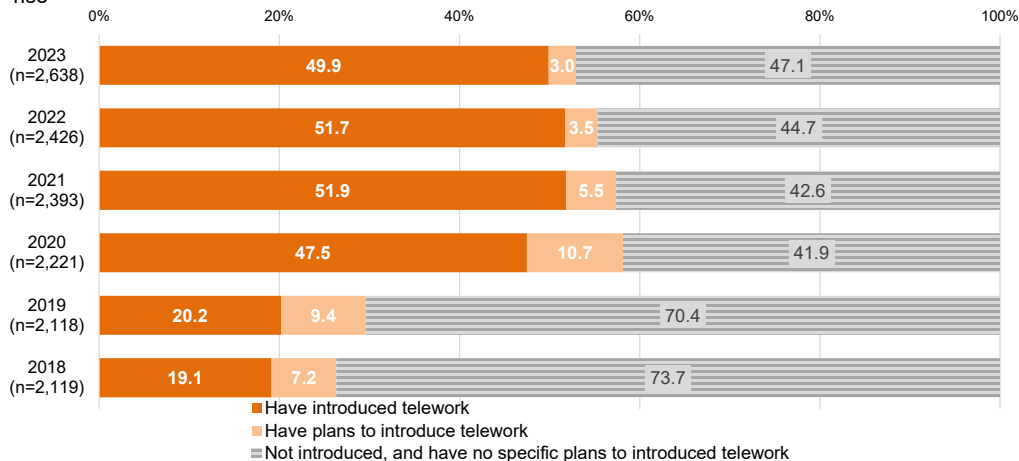
Note: Social Networking Services (SNS) refer to Facebook, Twitter, LINE, mixi, Instagram, Skype, etc.



4 Introduction State of Telework (Businesses)

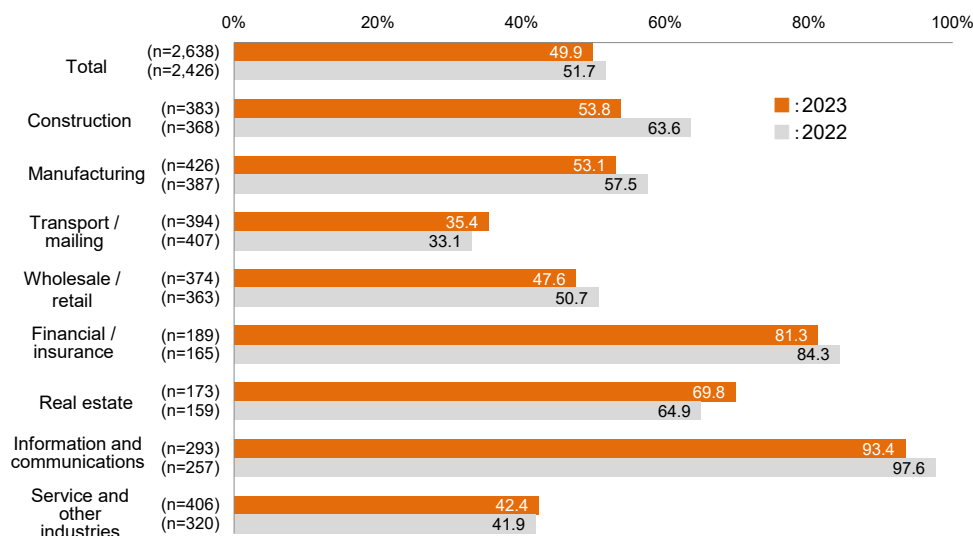
Introduction state of telework

The percentage of businesses that have introduced telework was about 50%, and the number of businesses that responded, "Not introduced, and have no specific plans to introduced telework", is on the rise



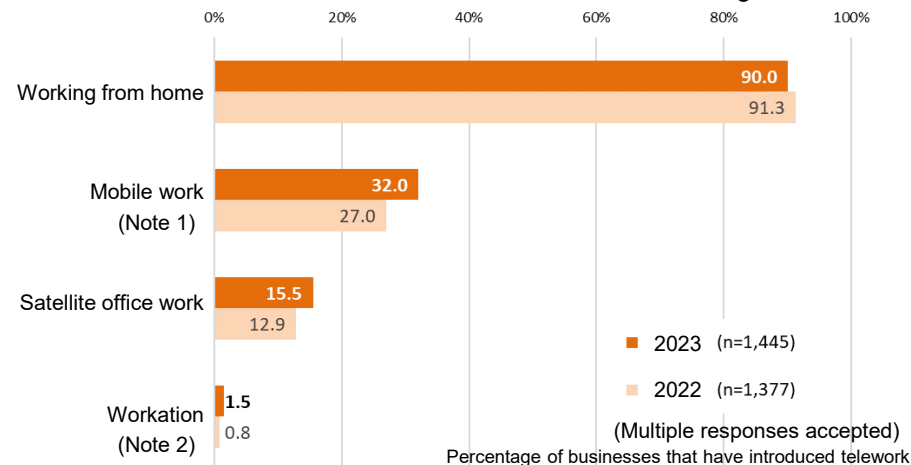
Introduction of telework by industry

Telework has been introduced by 90% or more businesses in the "Information and communications" industry and 80% or more businesses in the "Finance / insurance" industry, however, the introduction rate is on a declining trend. The rate of decrease in the "Construction" industry sector is particularly significant.



Types of telework introduced

Among businesses that have introduced telework, businesses that have introduced telework other than work from home are increasing.

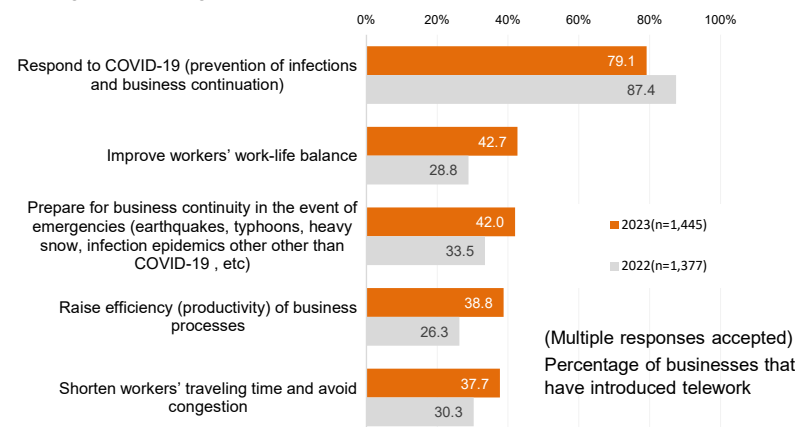


Note 1: Mobile work refers to sales and other types of work done out of the office, including email and journal creation at transportation facilities or cafes.

Note 2: Workation means that workers take advantage of telework to spend time on personal vacation while working at places other than their usual workplaces and homes.

Purpose of introducing telework

Purpose for introducing telework, while "Responding to COVID-19" decreased from the previous year, "Improve workers' work-life balance" and "Prepare for business continuity in the event of emergencies" increased as the purpose of introducing teleworking.



5 Cloud Service Usage (Businesses)

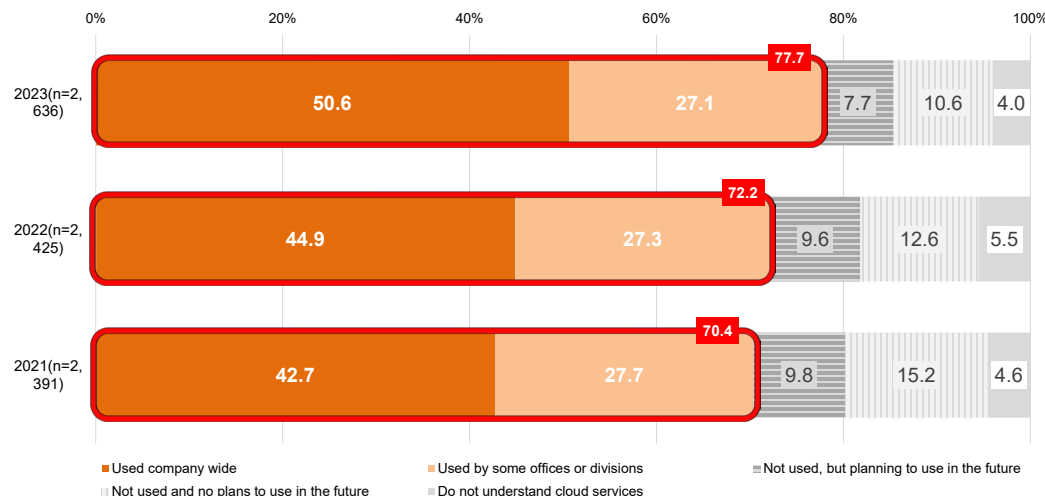
The percentage of businesses using cloud services continues to increase, approaching 80%.

Usage applications included “File storage / data sharing”, “Information sharing / portal”, and “email” for more than 50% of the respondents.

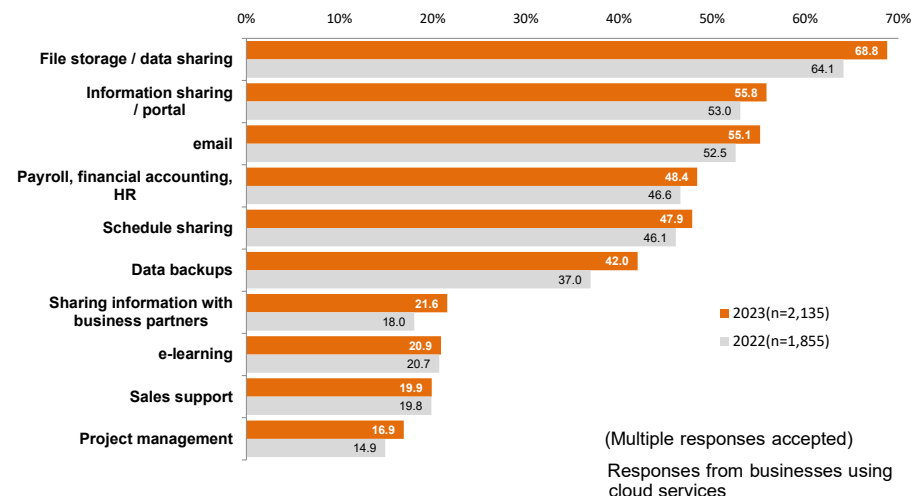
Although this has decreased since last year, approximately 50% of the respondents choose, “The same services are available irrespective of location or equipment” as the reason for using the service.

Businesses that view cloud services as “Very beneficial” or “Somewhat beneficial” account for about 90% of those that have introduced such services.

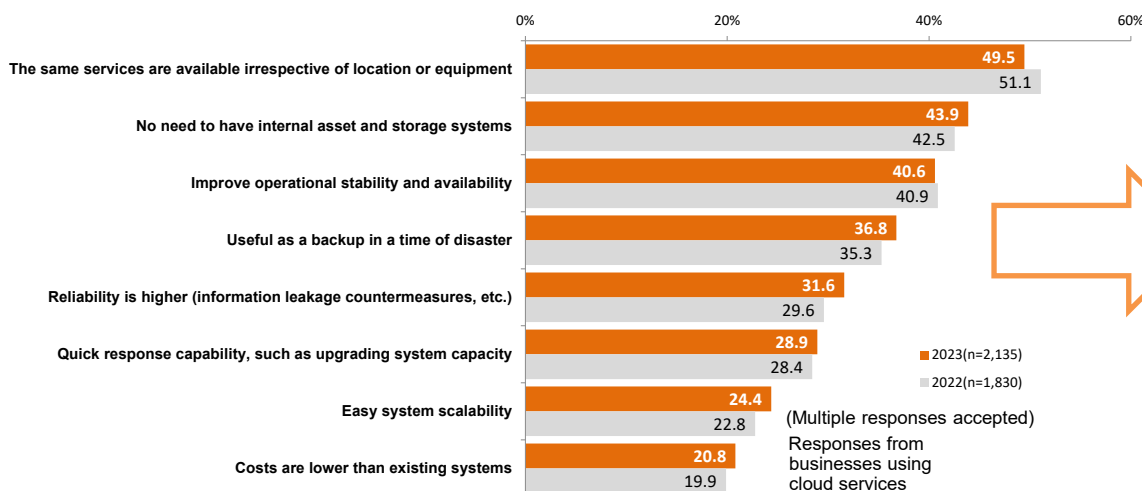
Usage state of cloud services



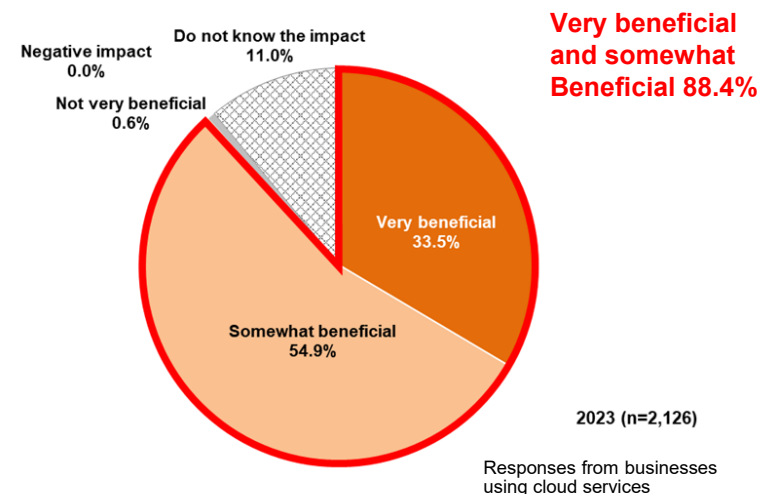
Usage applications of cloud services



Reasons for using cloud services



Impact of cloud services

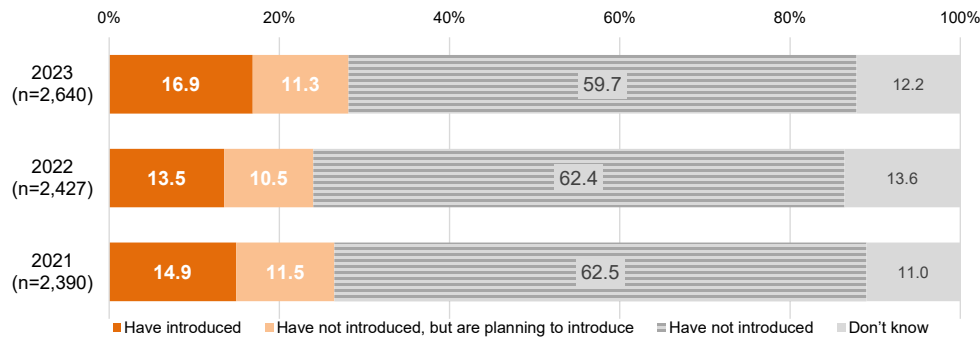


6. Collection / Utilization of Digital Data by IoT / AI Systems (Businesses)

7

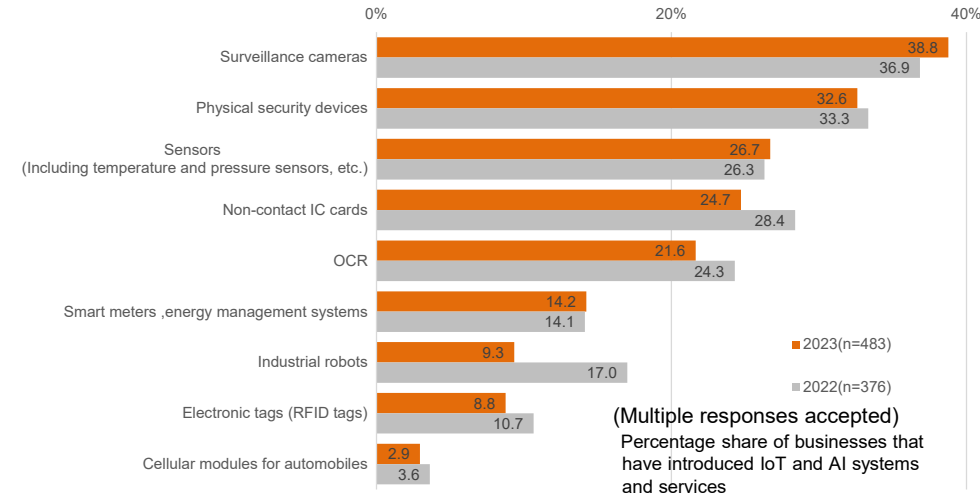
Introduction of IoT / AI systems / services

The share of businesses that “Have introduced” IoT and AI systems or services to collect and analyze digital data is 16.9% and is increasing.

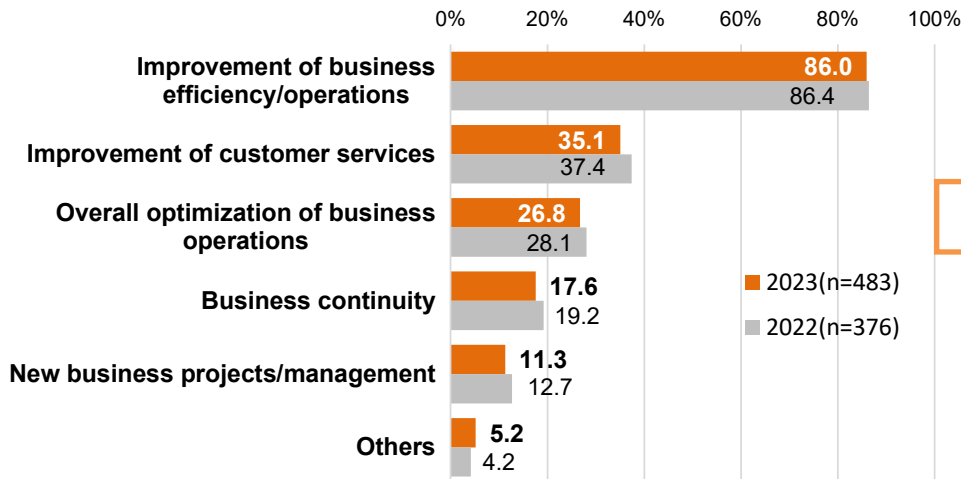


Components for systems or services that have been introduced

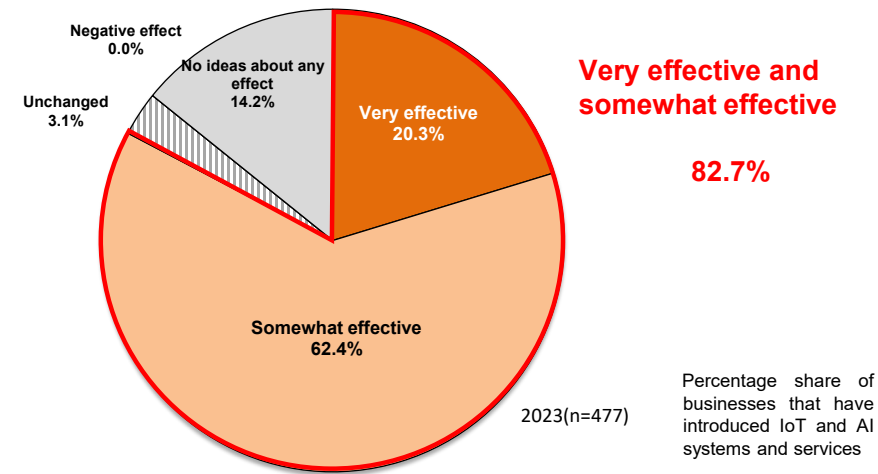
Regarding components of systems or services that have been introduced, the highest percentage, 38.8% of respondents selected “Surveillance cameras”, followed by 32.6% “Physical security devices”, and 26.7% “Sensors”.



Purpose of digital data collection and analysis by IoT / AI



Effects of the introduction of IoT / AI systems / services

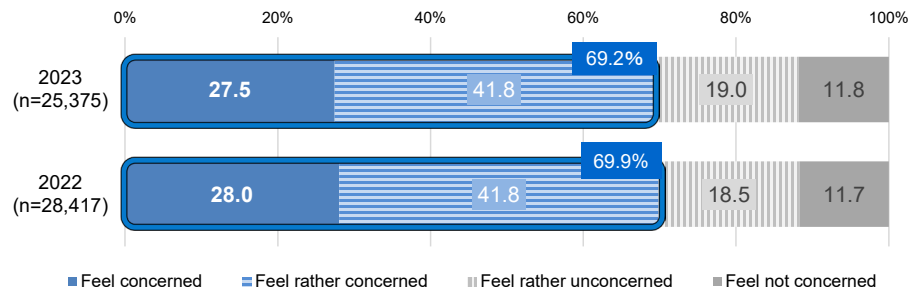


7. Concerns About Using the Internet (Individuals)

8

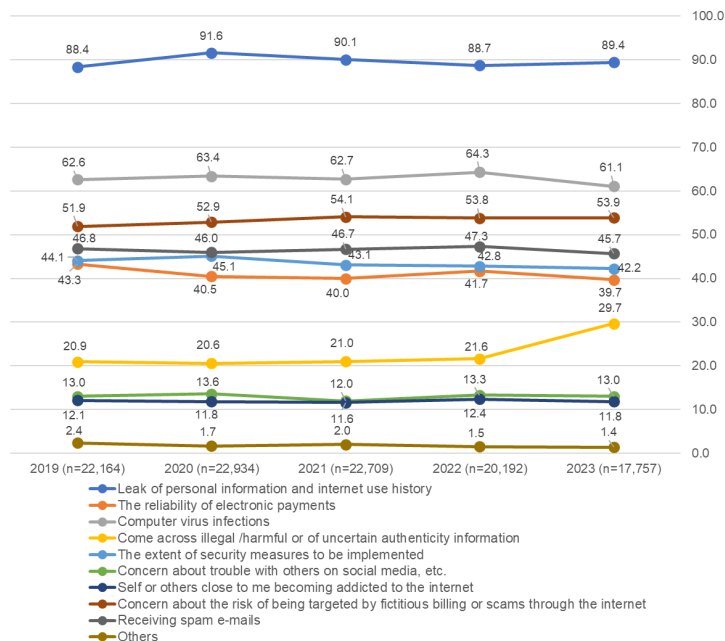
Concerns about using the Internet

About 70% of Internet users feel some form of anxiety while using the Internet.



Types of concerns about using the internet (Changes over the past 5 years)

Although there has been no significant change over the past five years, the percentage of respondents who stated, “Come across illegal / harmful or of uncertain authenticity information”, increased by 8.1 points from 2022 to 2023.



Responses from individuals who have used the Internet and have concerns about using the Internet

Types of concerns about using the Internet (By age group)

Specific concerns by age group, “Leak of personal information and internet use history” was the most common concern for all age groups. The top concern among those aged 6-19 was “Concern about trouble with others on social media, etc.” and among those aged 20-59 was “Concern about the reliability of electronic payments”.

	Total participants (n)	First	Second	Third	Fourth	Fifth
[Overall]	17,757	Leak of personal information and internet use history 89.4	Computer virus infections 61.1	Concern about the risk of being targeted by fictitious billing or scams through the Internet 53.9	Receiving spam e-mails 45.7	The extent of security measures to be implemented 42.2
By age group						
6 to 12 years	599	Leak of personal information and internet use history 80.5	Computer virus infections 33.9	Come across illegal / harmful or of uncertain authenticity information 30.9	Concern about the risk of being targeted by fictitious billing or scams through the Internet 28.0	Concern about trouble with others on social media, etc. 27.8
13 to 19 years	947	Leak of personal information and internet use history 89.0	Computer virus infections 50.2	Concern about the risk of being targeted by fictitious billing or scams through the Internet 37.4	Concern about trouble with others on social media, etc. 30.2	Receiving spam e-mails 28.5
20 to 29 years	1,320	Leak of personal information and internet use history 92.5	Computer virus infections 62.0	Concern about the risk of being targeted by fictitious billing or scams through the Internet 52.6	Receiving spam e-mails 39.3	The reliability of electronic payments 37.5
30 to 39 years	1,874	Leak of personal information and internet use history 90.5	Computer virus infections 63.9	Concern about the risk of being targeted by fictitious billing or scams through the Internet 53.2	The extent of security measures to be implemented 45.8	The reliability of electronic payments 42.5
40 to 59 years	2,802	Leak of personal information and internet use history 93.0	Computer virus infections 64.4	Concern about the risk of being targeted by fictitious billing or scams through the Internet 51.3	The reliability of electronic payments 48.1	The extent of security measures to be implemented 45.0
50 to 59 years	3,538	Leak of personal information and internet use history 92.1	Computer virus infections 68.1	Concern about the risk of being targeted by fictitious billing or scams through the Internet 58.5	Receiving spam e-mails 50.1	The reliability of electronic payments 47.4
60 to 69 years	3,877	Leak of personal information and internet use history 89.5	Computer virus infections 63.8	Concern about the risk of being targeted by fictitious billing or scams through the Internet 62.4	Receiving spam e-mails 57.4	The extent of security measures to be implemented 47.2
70 to 79 years	2,317	Leak of personal information and internet use history 83.6	Concern about the risk of being targeted by fictitious billing or scams through the Internet 58.2	Receiving spam e-mails 56.9	Computer virus infections 55.8	The extent of security measures to be implemented 44.8
80 or older	483	Leak of personal information and internet use history 72.9	Receiving spam e-mails 56.3	Concern about the risk of being targeted by fictitious billing or scams through the Internet 51.9	Computer virus infections 47.8	The extent of security measures to be implemented 37.8

(Multiple responses accepted)

Responses from individuals who have used the Internet and have concerns about using the Internet

Summary Findings of the 2023 Communications Usage Trend Survey

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<Survey Outline>

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- The household survey targets households headed by householders aged 20 or older (as of April 1, 2023) and household members aged 6 or older (40,592 households).
- The business survey targets businesses with 100 or more regular employees in industries other than public affairs (6,121 businesses).

<Note>

- Data in this document exclude non-respondents in the survey (unless otherwise specified).
- Figures in the chart are rounded to the nearest unit, and individual figures may not add up to totals due to rounding.

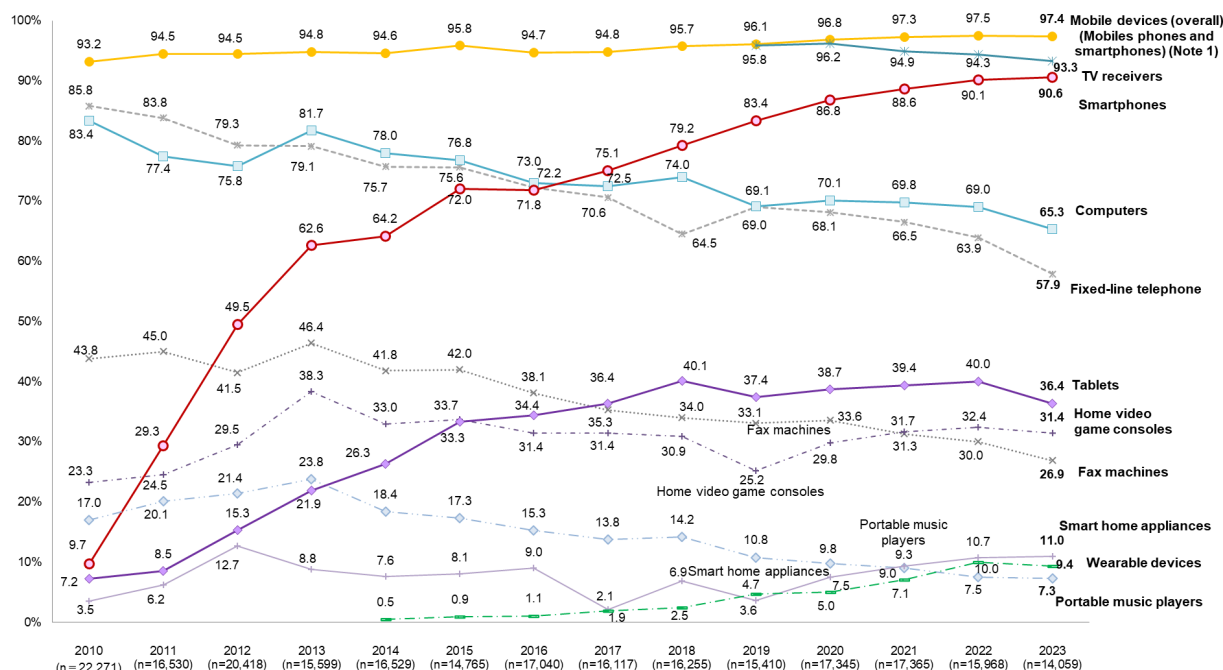
1. Proliferation of the Internet and Other Networks

(1) Ownership of communication devices (households)

Ownership rises to 90.6% for smartphones among communication devices and continues to increase. Ownership for other communication devices, however, is mostly declining.

The ratio for ownership of a TV with a tuner to a TV without a tuner is almost 9 to 1.

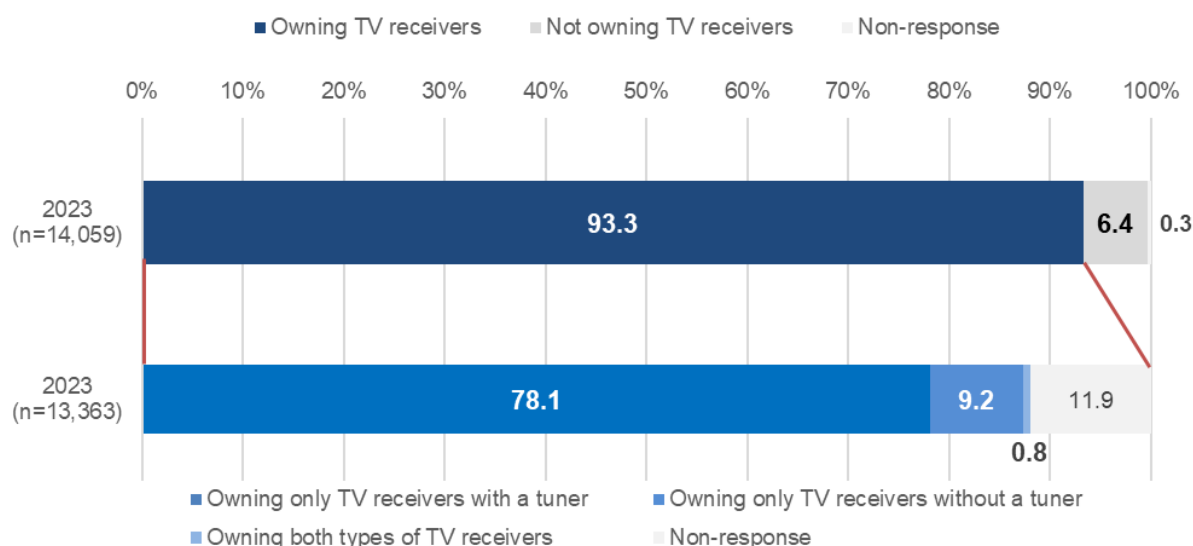
Figure 1-1: Transitions in ownership of communication devices



(Note 1) "Mobile devices (overall)" include personal digital assistants (PDAs) between 2009 and 2012, smartphones from 2010 and PHS handsets until 2020.

(Note 2) For comparison purposes between years, these calculations do include non-responses.

Figure 1-2: Ownership of Television (TV receivers with or without a tuner)^{Note 1)}



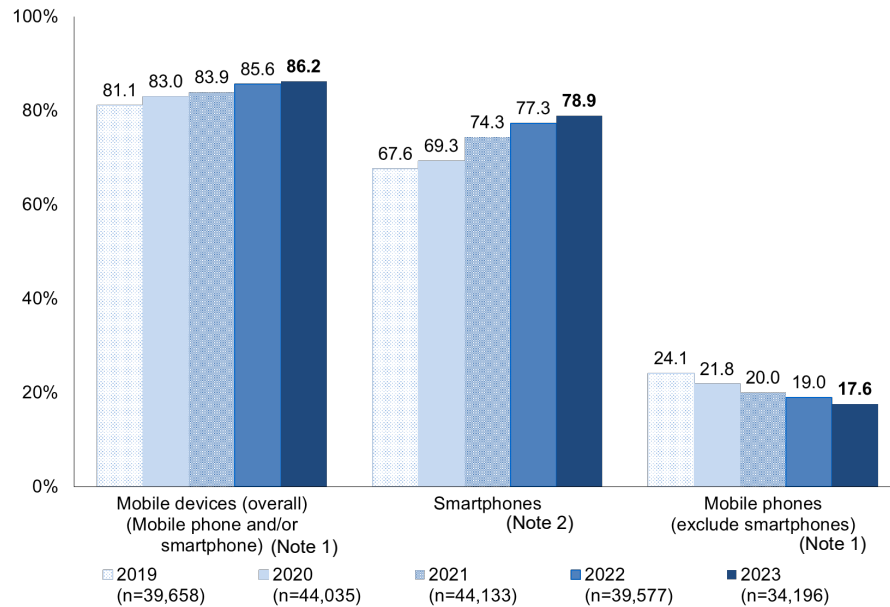
(Note 1) A tuner is a device that receives broadcast signals, such as a terrestrial digital TV broadcast and BS digital TV broadcast. At present, TV receivers in general have a built-in tuner, and TV receivers of this type are referred to as "TV receivers with a tuner" in this survey. "TV receivers without a tuner" are receivers that do not have a built-in tuner, so they do not enable users to view TV broadcasts on their own. "TV receivers without a tuner" are intended mainly for viewing internet streaming.

(Note 2) The numbers in the above figure were tabulated in a way that reflects "non-response" answers.

(2) Ownership of mobile devices (individuals)

Regarding the ownership of mobile devices by individuals, the ownership rate for mobile devices as a whole is 86.2%, of which, “smartphones” is 78.9%. By age group, the percentage of individuals with no ownership for any mobile devices exceeds 20% in the age groups “6 to 12” and “80 or older.”

Figure 1-3: Transitions in ownership of mobile devices

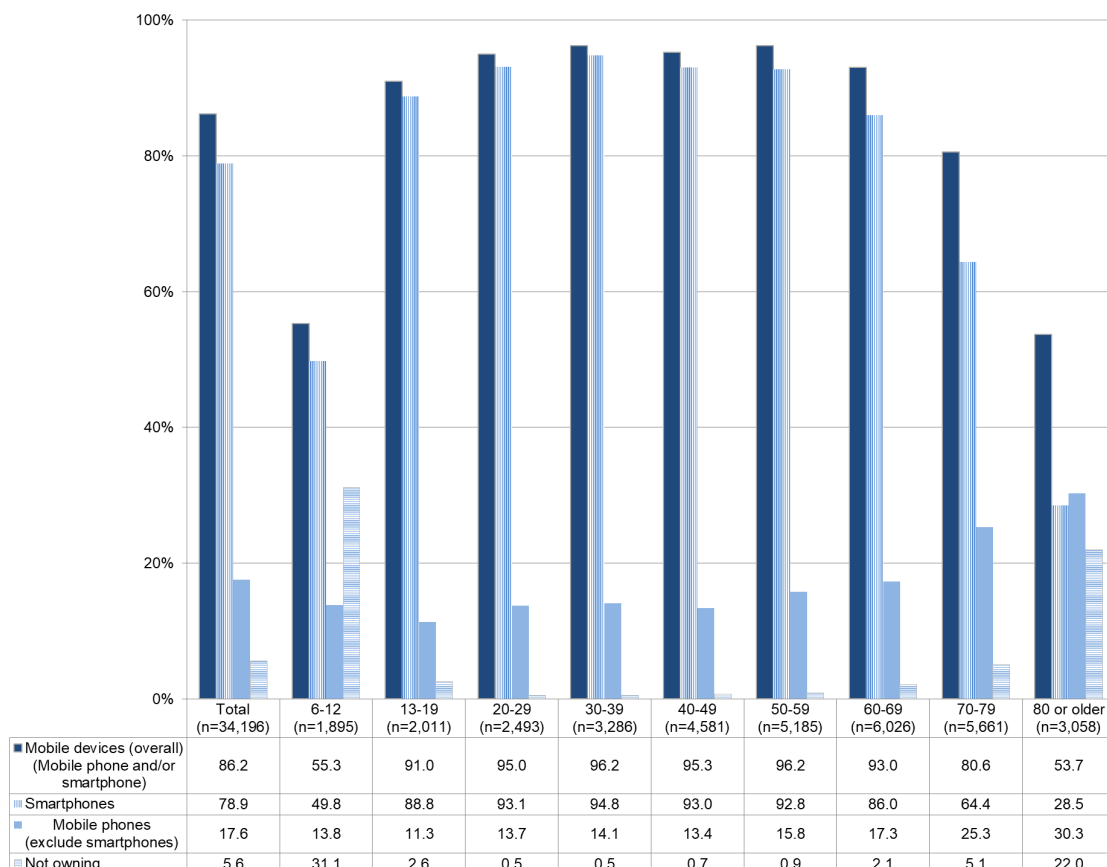


(Note 1) “Mobile devices (overall)” and “Mobile phones (excluding smartphones)” include PHS handsets before 2020.

(Note 2) “Smartphones” do not include 5G terminals before 2020.

(Note 3) For comparison purposes between years, these calculations do include non-response.

Figure 1-4: Ownership of mobile devices by age group (2023)

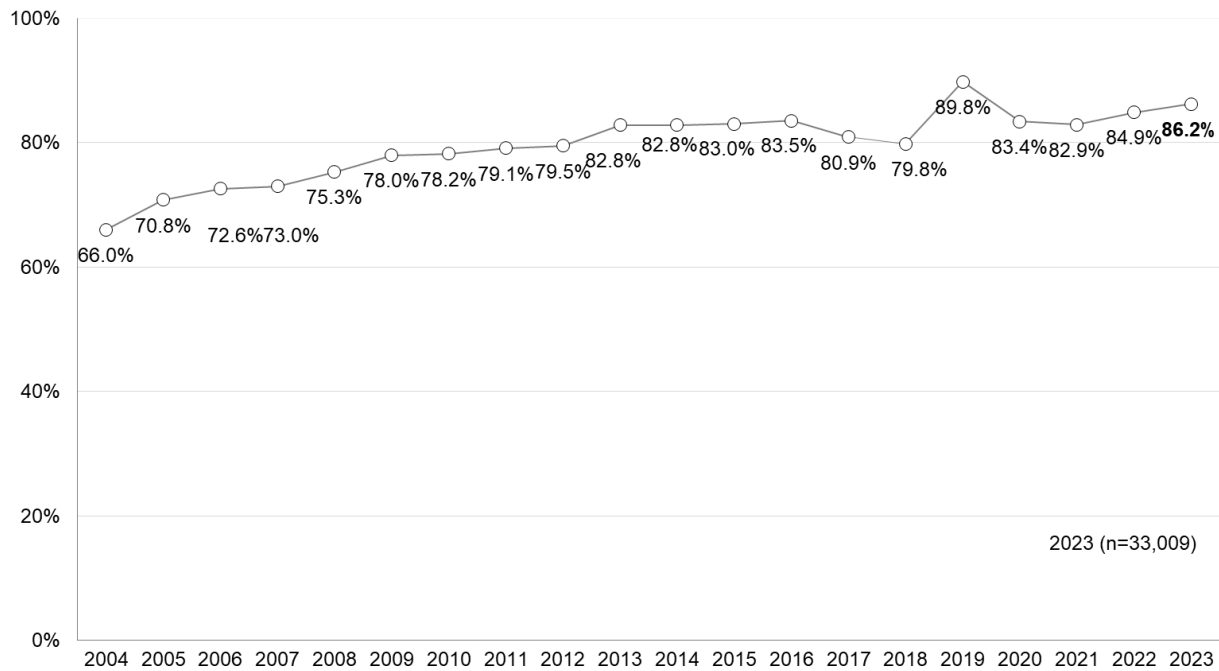


(Note) Including non-response.

(3) Internet usage (individuals)

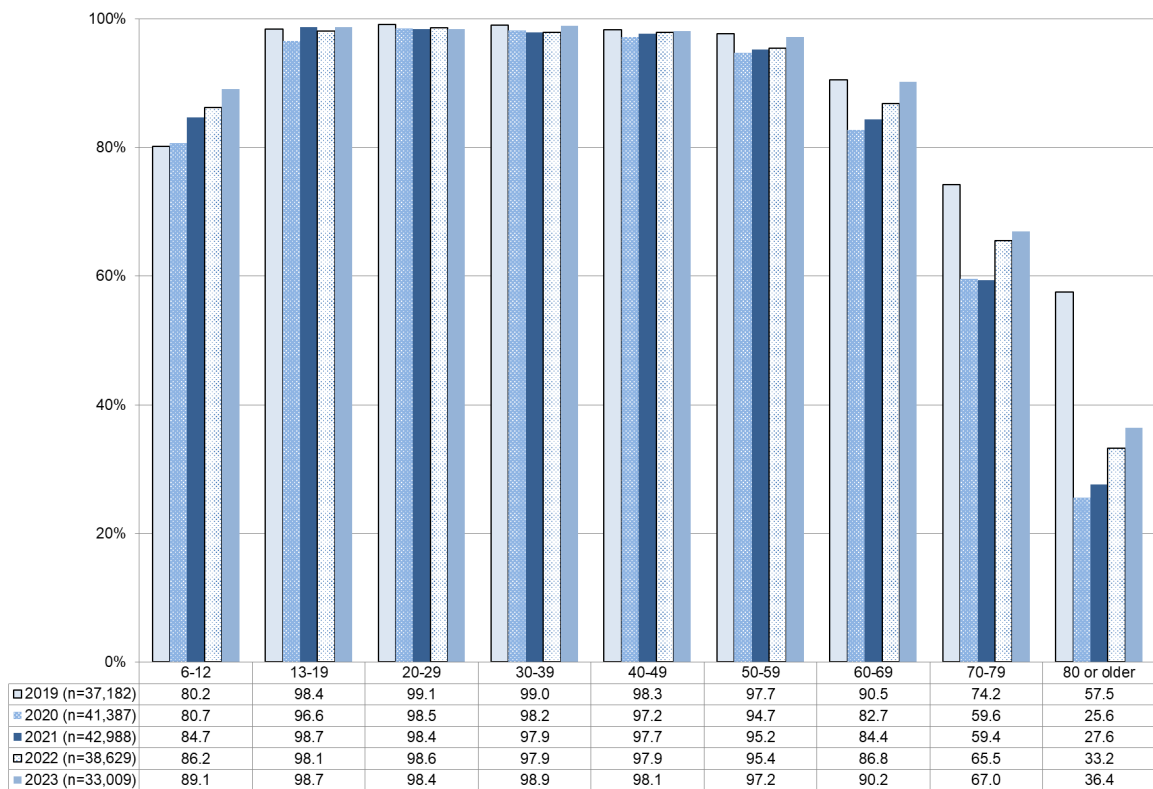
The internet user share is 86.2%. The share tops 90% for individuals aged between 13 and 69.

Figure 1-5: Transitions in internet usage



(Note) For historical comparison, it should be remembered that the survey design for 2019 was somewhat different from that for other years.

Figure 1-6: Transitions in internet usage by age group



(Note) For historical comparison, it should be remembered that the survey design for 2019 was somewhat different from that for other years.

Figure 1-7: Internet usage by age and gender (2023)

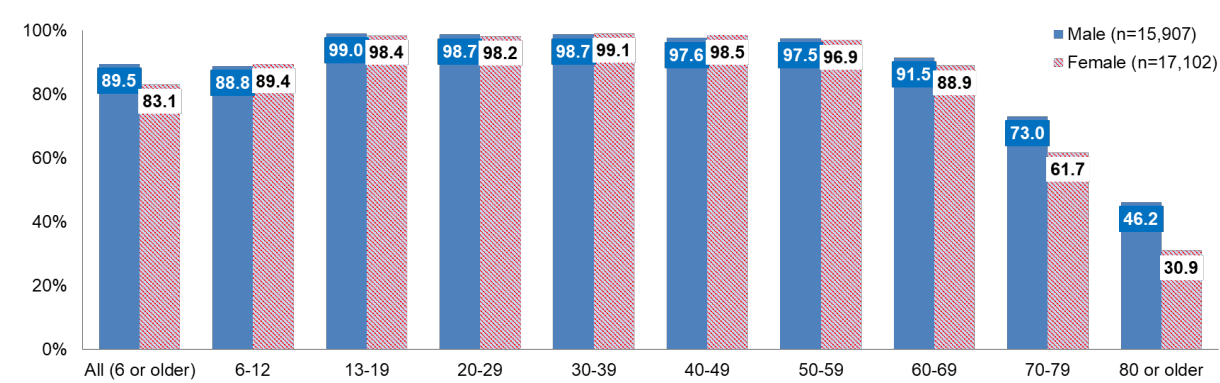
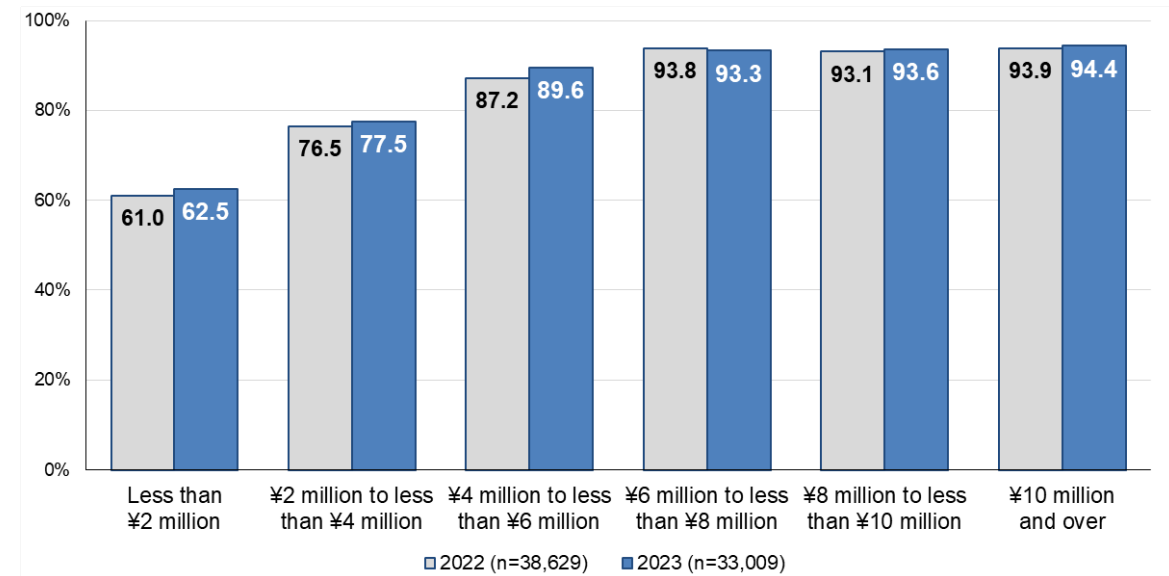


Figure 1-8: Internet usage by annual household income



(4) Internet usage by device (individuals)

The internet usage by device indicates that the percentage of those using smartphones for internet access is 25.5 points higher than that of those using computer. The internet usage rate via smartphones is about 90% for all age groups between 20 to 59 and about 80% for the age group between 60 and 69. The usage rate of tablets is high for the age group between 6 to 12, but the higher the age group is, the lower the usage rate of tablets tends to become.

Figure 1-9: Internet usage by device

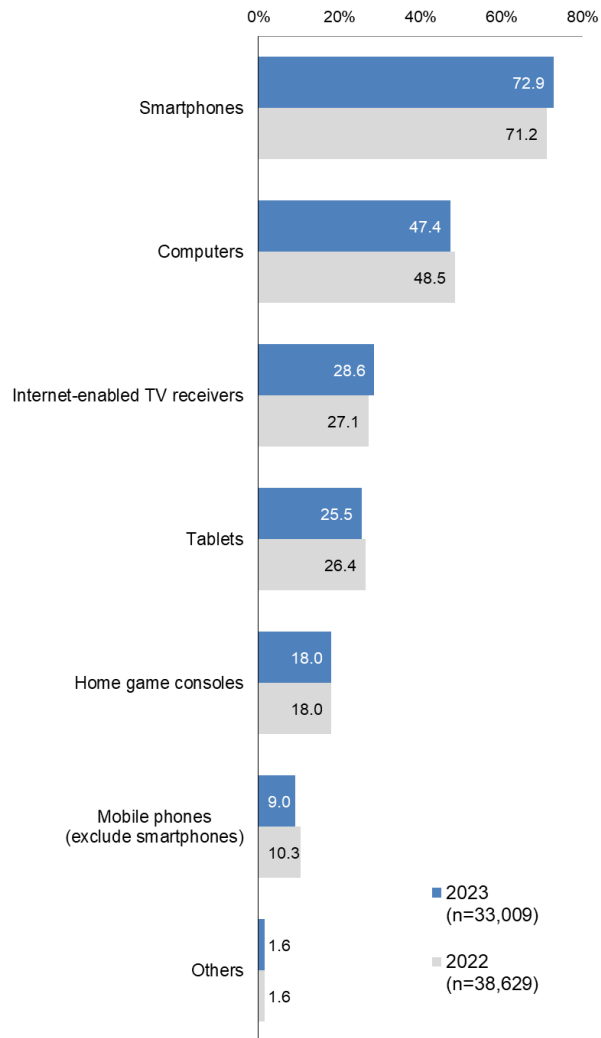
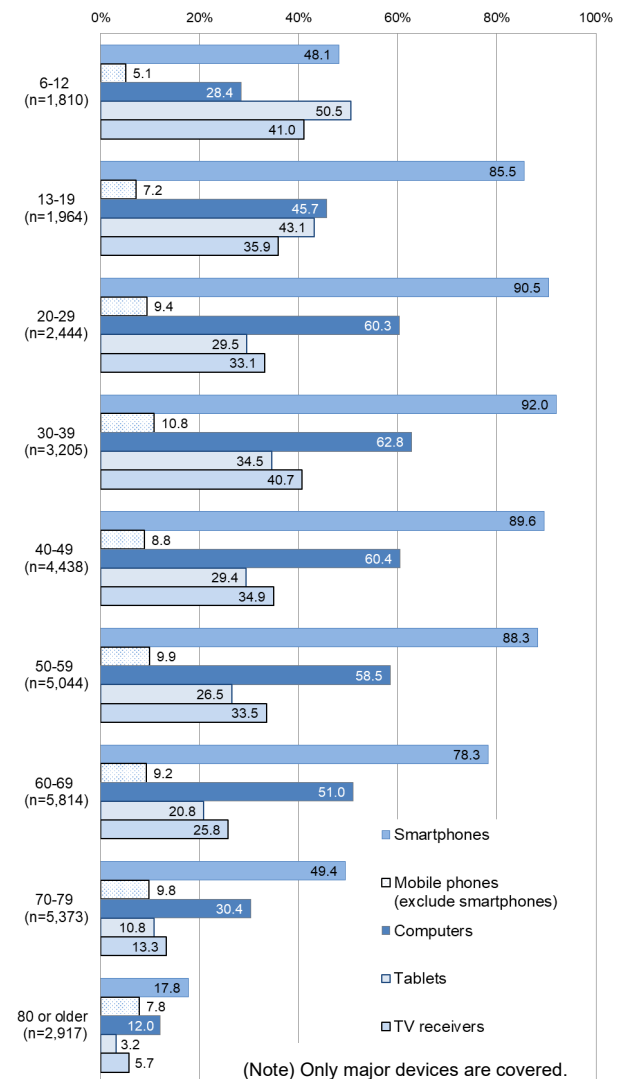


Figure 1-10: Use of internet devices by age group (2023)



(5) Internet usage by prefecture and region (individuals)

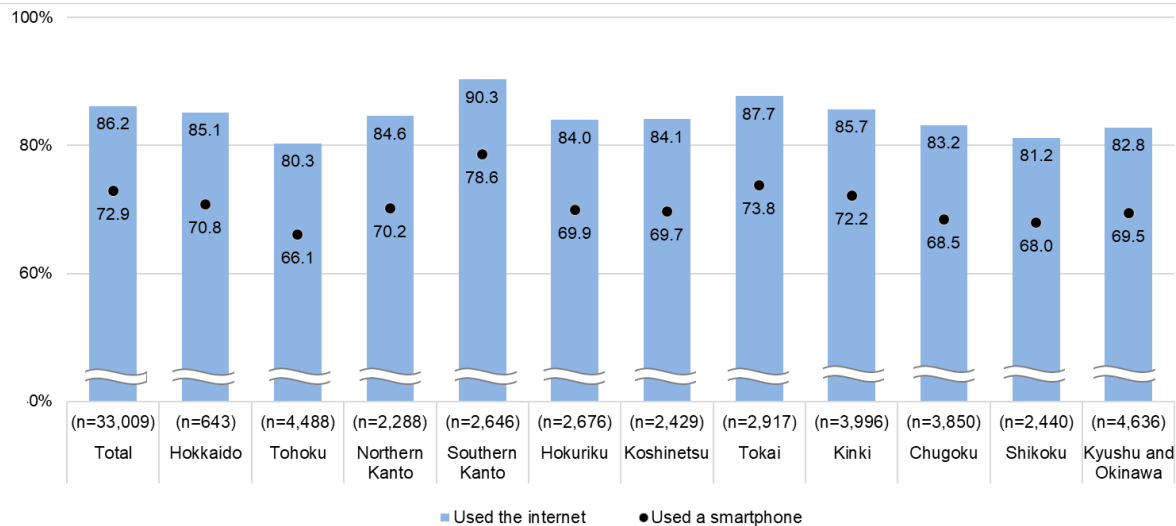
The internet usage by prefecture indicates that the internet usage rate via smartphones accounts for over 80% in Tokyo and Kanagawa.

By region, the internet usage rate in southern Kanto and Tokai is higher than the national average rate.

Figure 1-11: Internet usage by prefecture and device (2023)

Prefecture (n)	Percentage of internet users (%)				
	Total	Computers	Mobile phones	Smartphones	Tablets
Hokkaido (643)	85.1	42.5	7.0	70.8	28.8
Aomori (746)	74.6	32.1	6.9	60.5	15.8
Iwate (706)	77.4	34.1	9.6	55.4	14.9
Miyagi (709)	86.5	47.7	7.0	77.3	28.9
Akita (818)	77.2	40.5	7.6	64.9	20.7
Yamagata (940)	78.2	34.3	7.2	61.7	14.9
Fukushima (569)	81.0	43.8	10.5	65.6	22.5
Ibaraki (695)	84.6	46.2	7.7	70.0	27.6
Tochigi (859)	84.9	37.7	9.0	69.6	22.5
Gunma (734)	84.2	39.5	10.1	71.0	21.4
Saitama (769)	89.7	49.8	7.0	77.4	29.8
Chiba (640)	83.4	46.0	9.9	70.8	24.6
Tokyo (526)	92.4	60.5	8.2	81.1	32.9
Kanagawa (711)	92.4	55.2	9.4	81.2	30.1
Niigata (835)	81.8	39.0	8.5	68.3	22.2
Toyama (1058)	83.0	46.1	7.7	70.1	20.9
Ishikawa (876)	84.9	49.9	9.3	71.2	24.1
Fukui (742)	84.1	44.1	9.3	67.7	20.9
Yamanashi (817)	84.9	44.1	12.3	69.5	22.7
Nagano (777)	86.1	43.8	8.2	71.4	22.6
Gifu (781)	85.7	41.7	8.4	72.1	24.4
Shizuoka (735)	85.8	44.7	10.8	72.2	28.2
Aichi (693)	89.4	52.0	10.6	75.4	23.7
Mie (708)	86.1	46.4	11.5	72.3	23.2
Shiga (812)	90.8	48.4	7.4	78.1	24.4
Kyoto (639)	89.6	55.0	9.9	76.9	27.8
Osaka (525)	86.9	49.8	10.1	73.0	22.9
Hyogo (718)	80.8	42.7	8.6	67.2	24.7
Nara (717)	87.6	55.0	9.6	75.7	27.6
Wakayama (585)	80.5	42.6	11.0	66.1	14.2
Tottori (748)	80.7	42.0	8.6	65.4	19.7
Shimane (877)	77.3	39.3	7.3	62.1	16.5
Okayama (778)	82.8	43.6	9.0	68.4	21.0
Hiroshima (736)	86.7	45.9	9.3	71.5	19.6
Yamaguchi (711)	80.2	41.8	9.1	66.8	24.1
Tokushima (658)	81.1	40.6	8.5	67.8	20.9
Kagawa (654)	82.4	43.3	12.7	69.0	19.2
Ehime (571)	81.9	38.5	5.4	69.6	17.8
Kochi (557)	78.6	38.9	9.1	63.6	21.3
Fukuoka (432)	85.0	41.1	9.5	73.6	23.4
Saga (733)	83.7	38.2	9.5	66.7	22.6
Nagasaki (612)	79.1	35.7	7.9	64.4	23.5
Kumamoto (681)	79.2	39.1	7.4	66.2	25.5
Oita (623)	83.9	40.1	11.8	70.9	20.6
Miyazaki (520)	76.5	45.0	12.4	64.8	22.5
Kagoshima (548)	84.4	39.1	11.1	67.1	24.7
Okinawa (487)	84.3	43.3	8.7	70.0	28.6
Total (33,009)	86.2	47.4	9.0	72.9	25.5

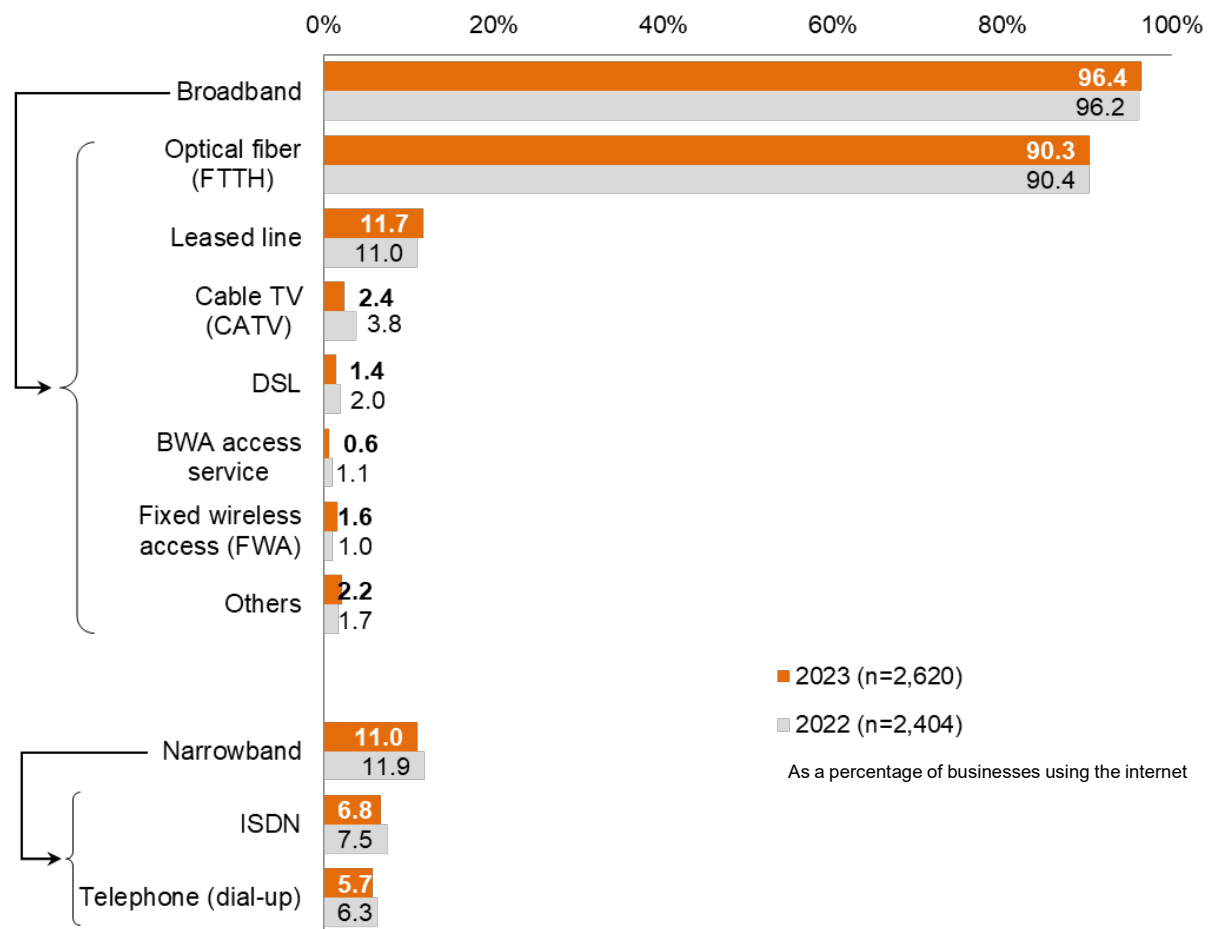
Figure 1-12: Internet and smartphone usage by region (2023)



(6) Types of internet connections (businesses)

Of the surveyed businesses, 96.4% use a broadband connection to access the internet from their premises. Of businesses using a broadband connection, 90.3% use an optical fiber connection. The majority of businesses using a broadband connection use an optical fiber connection.

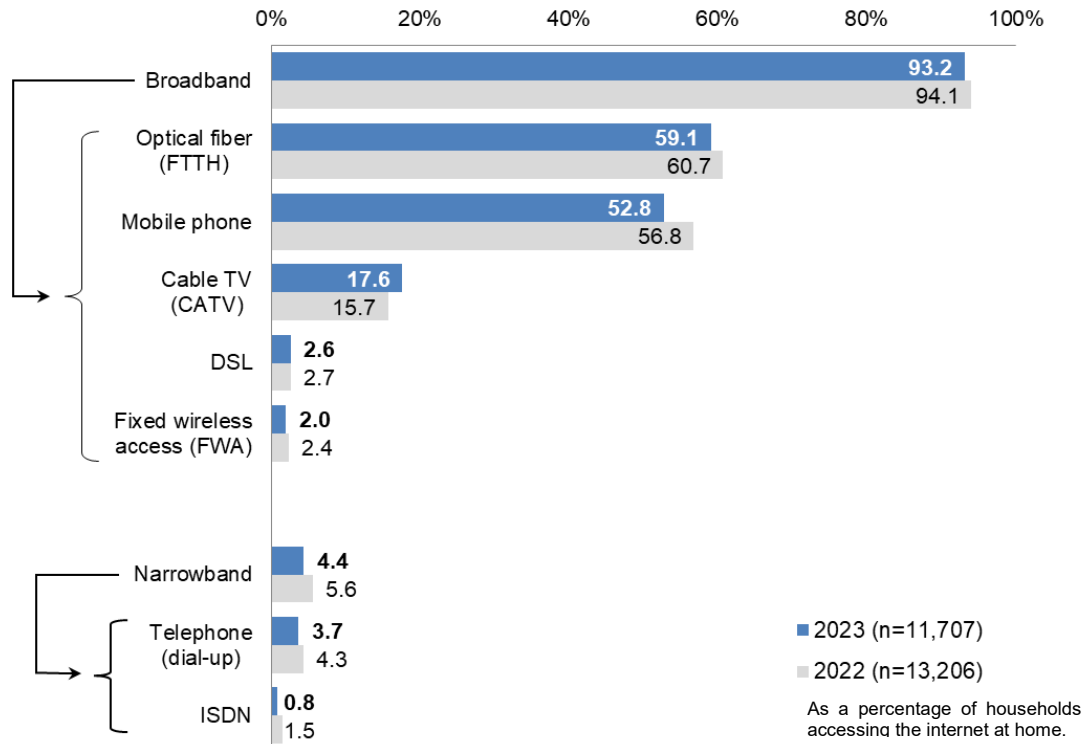
Figure 1-13: Internet connection types (multiple responses accepted)



(7) Types of internet connections (households)

Of households accessing the internet at home, 93.2% use a broadband connection.

Figure 1-14: Types of internet connections for computers and other devices at home (multiple responses accepted)

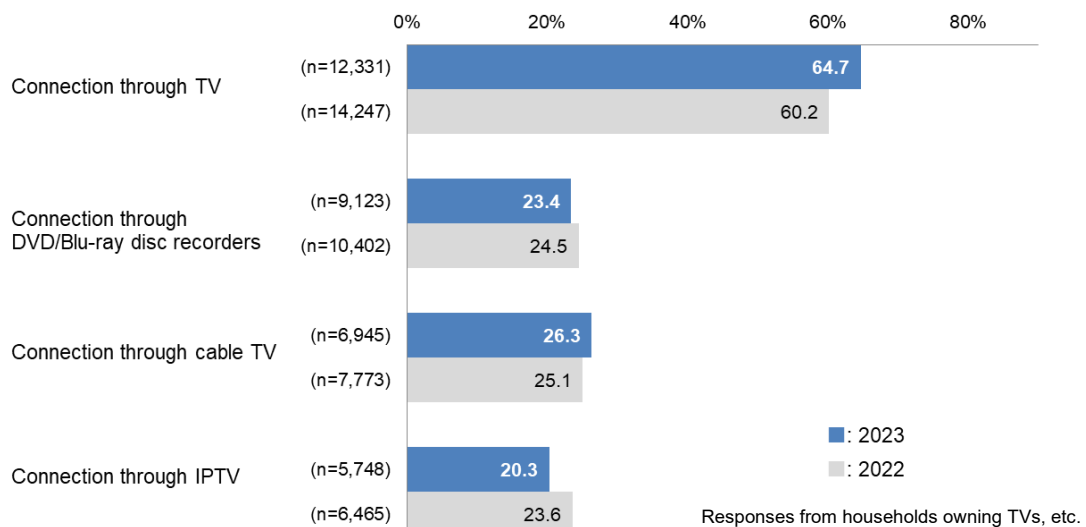


(8) Internet connection through TV, etc. (households)

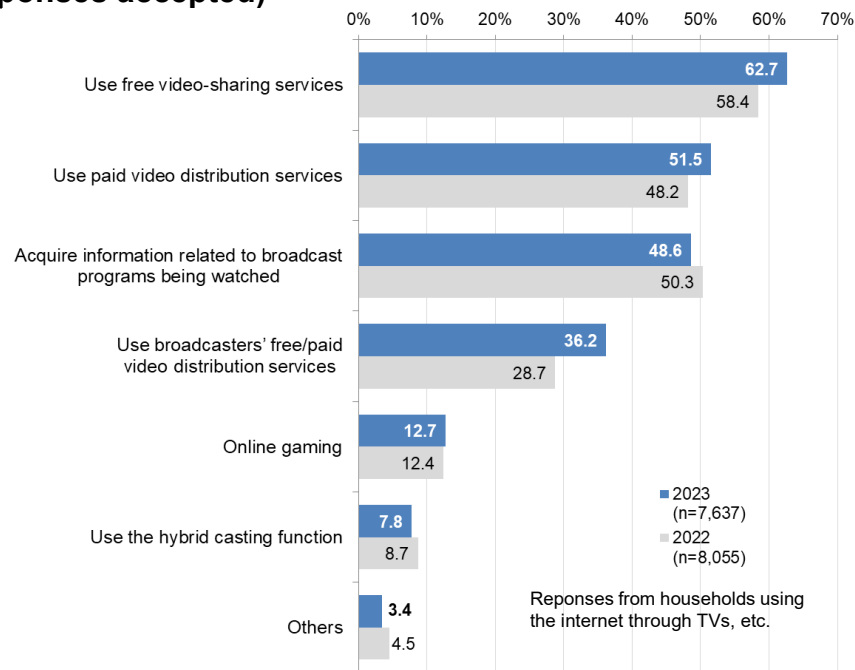
Of households using an internet connection through a TV, etc., those using a connection through a TV account for the highest share at 64.7%, followed by 26.3% for those using a connection through Cable TV.

The most frequently cited purpose is to “Use free video-sharing services”, cited by 62.7%, followed by to “Use paid video distribution services” (51.5%).

Figure 1-15: Internet connection through TV, etc. (multiple responses accepted)



**Figure 1-16: Purposes for using internet services through TVs, etc.
(multiple responses accepted)**



(9) Consultations about internet usage (individuals)

The status of individuals' consultations about internet usage indicates that 87.1% of individuals "Have someone to consult with." The most frequently cited parties to consult with are "Relatives" (76.6%), followed by "Friends" (39.4%) and "Mobile phone shops" (15.8%).

For all age groups, more than 70% cite "Relatives."

Figure 1-17: Consultations about internet usage (multiple responses accepted)

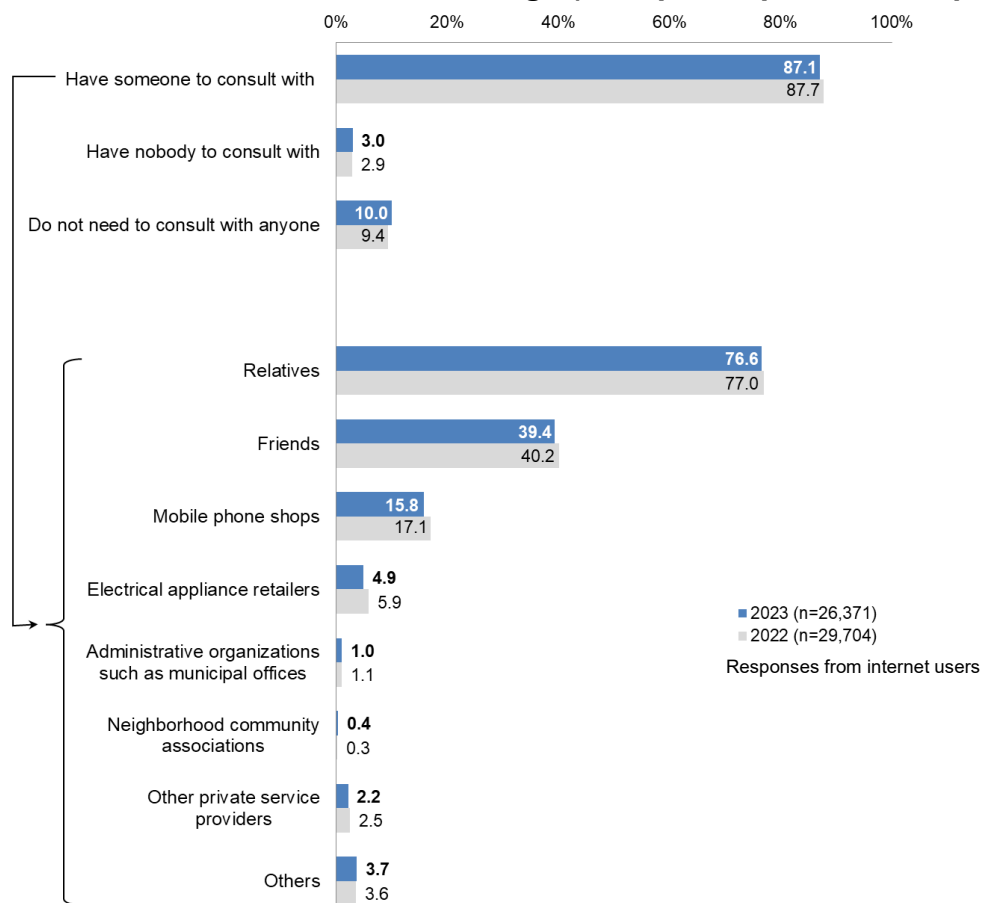
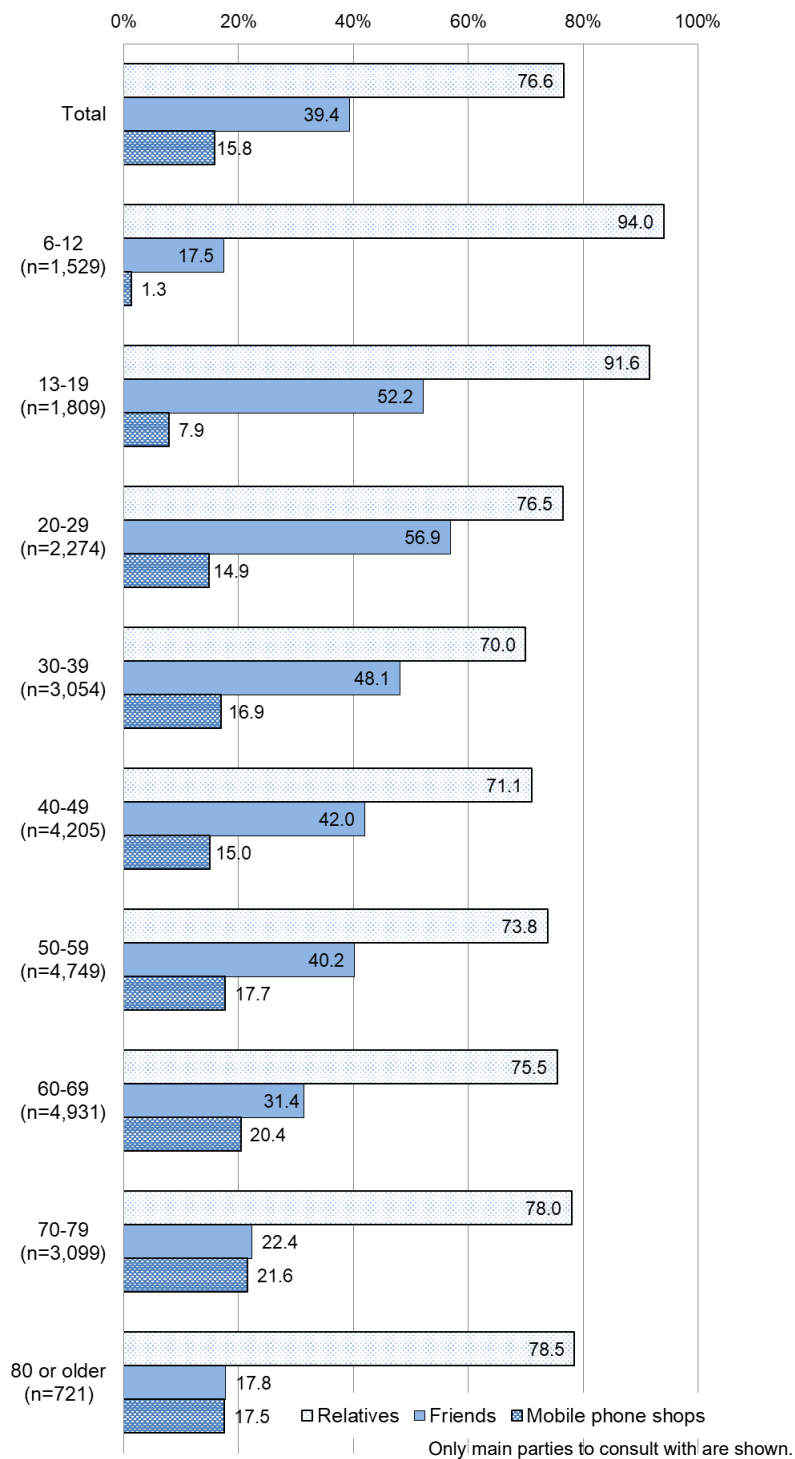


Figure 1-18: Consultations about internet usage by age group



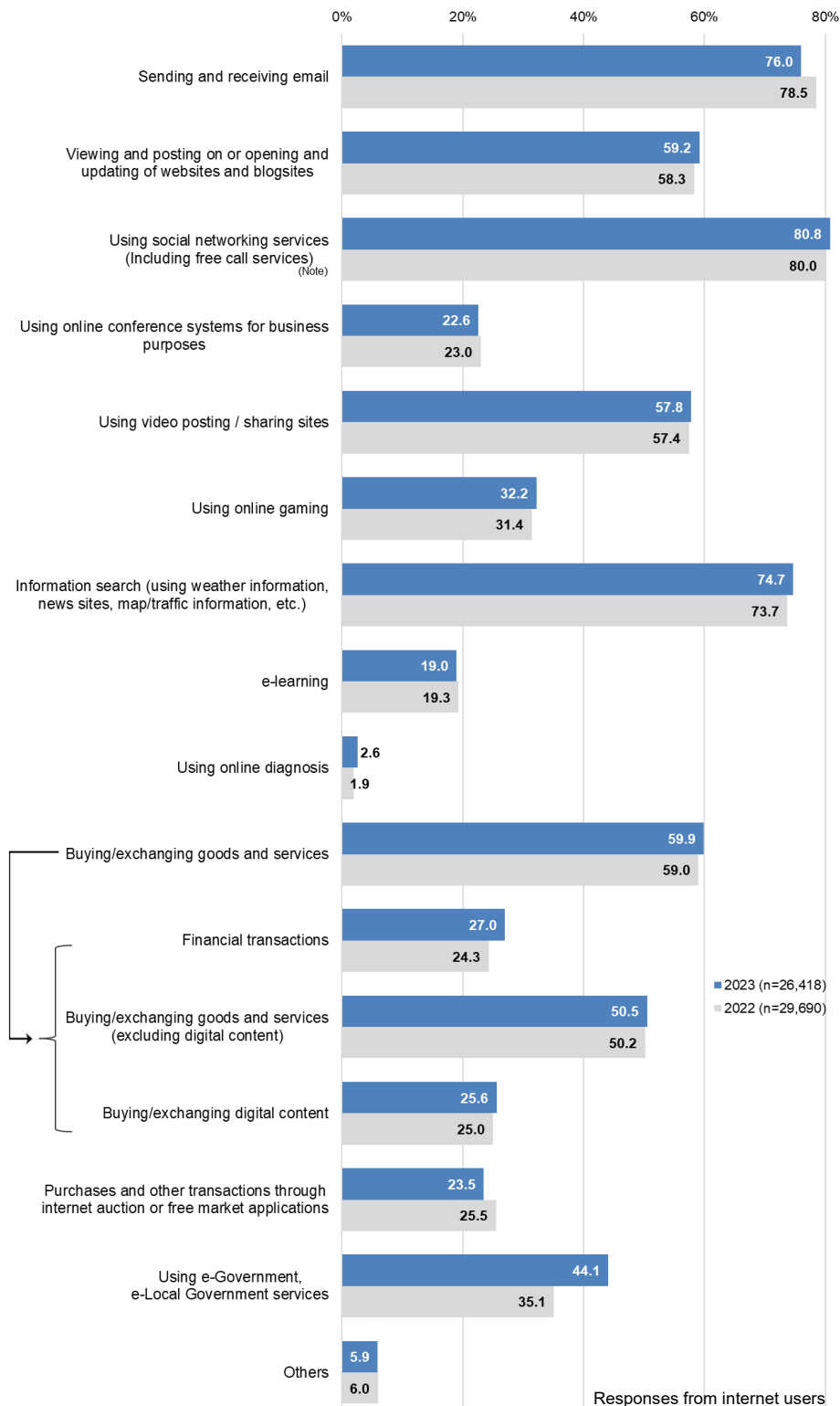
2. Current ICT Usage by Individuals

(1) Purposes of using the internet (individuals)

The most common usage of the internet is “Using social networking services (including free call services),” cited by 80.8%. This is followed by “Sending and receiving email” (76.0%) and “Information search” (74.7%).

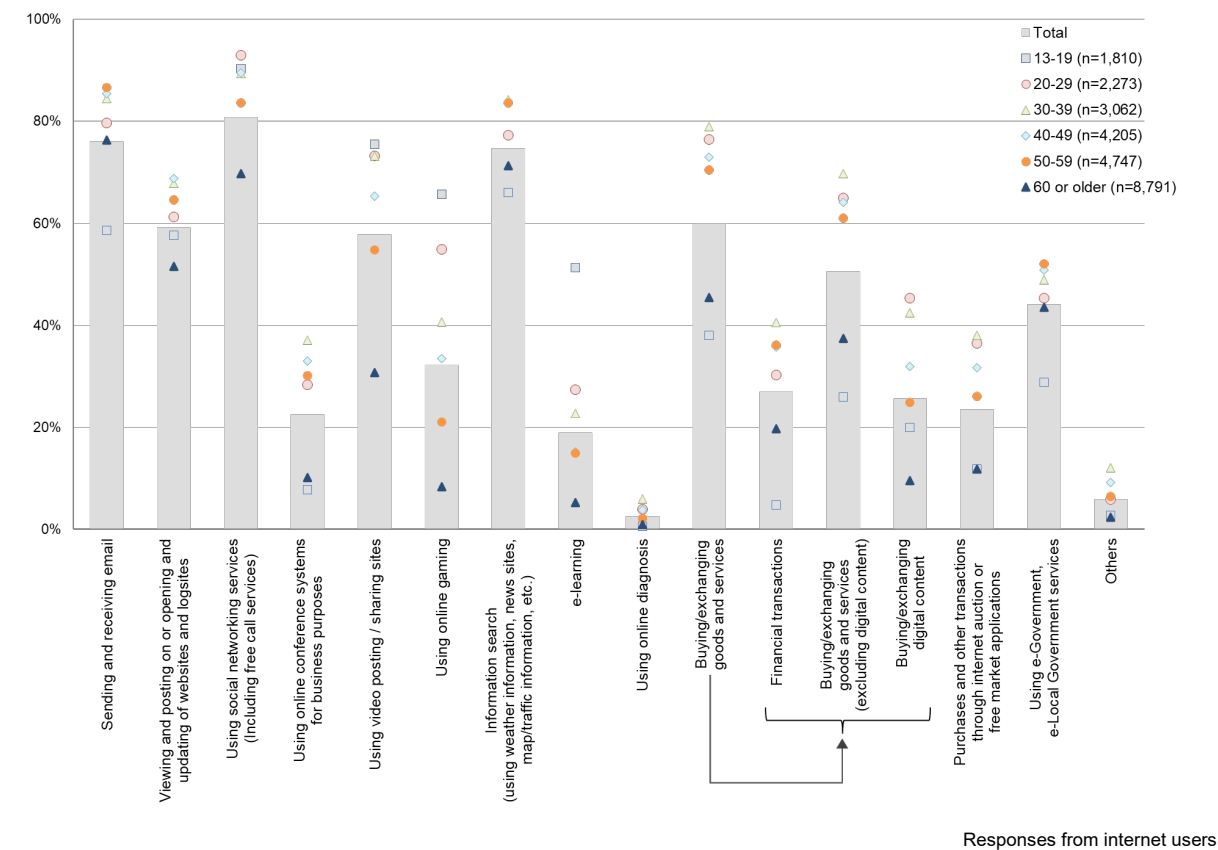
By age group, “Using social networking services (including free call services)” and “Sending and receiving email” are highly common usages across all age groups, while there are differences between age groups with respect to such usages as “e-learning,” “Using online gaming” and “Buying/Exchanging digital content.”

Figure 2-1: Purposes of using the internet (multiple responses accepted)



(Note) Using Facebook, Twitter, LINE, mixi, Instagram, Skype, etc.

Figure 2-2: Purposes of using the internet by age group (multiple responses accepted) (2023)

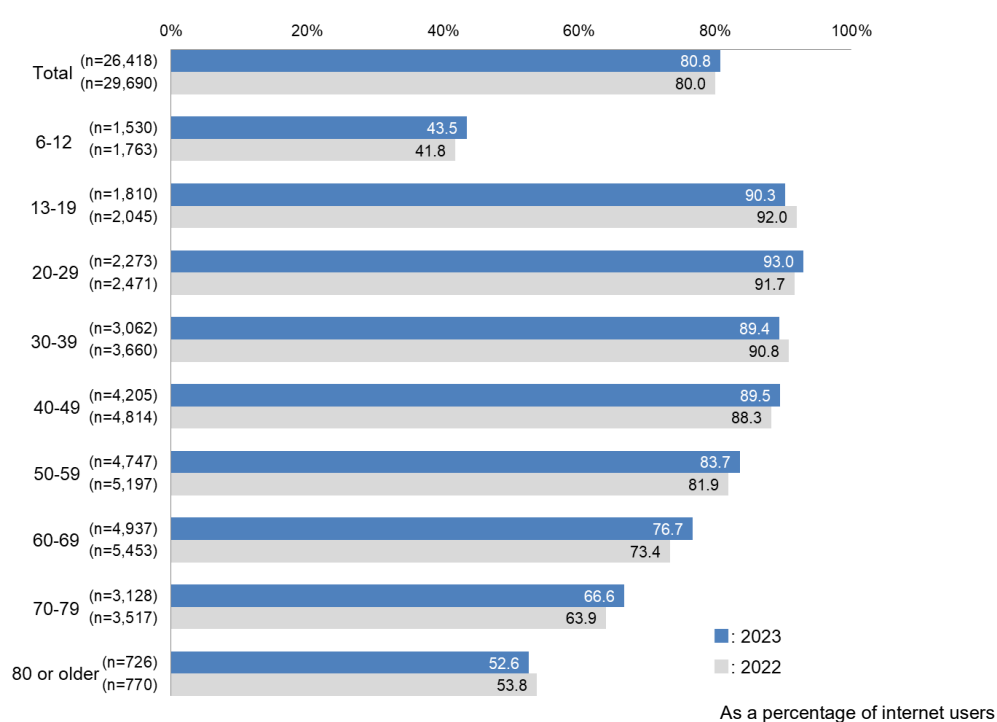


(2) Social networking service usage (individuals)

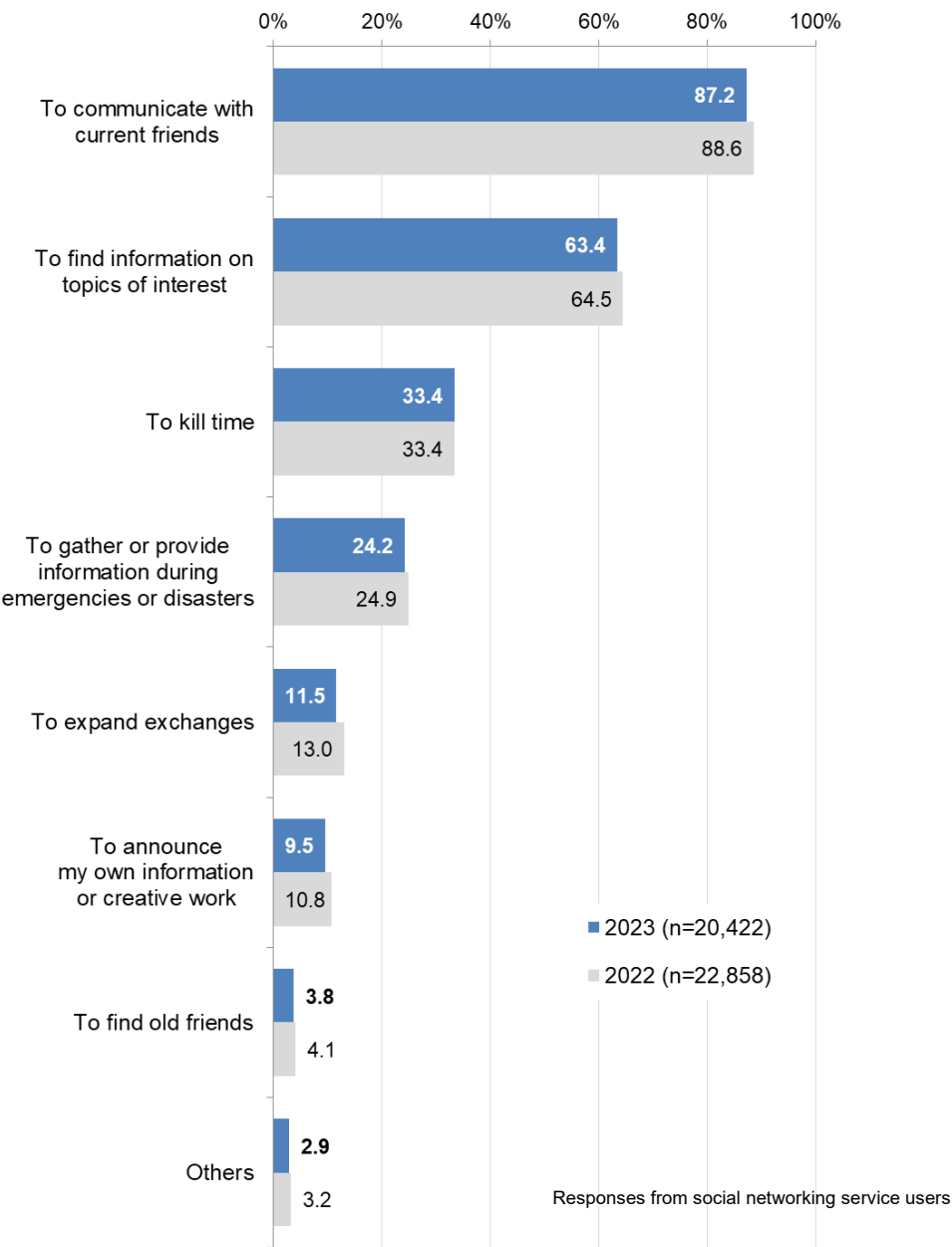
Of internet users, 80.8% use social networking services, up 0.8 points from the previous year.

Among purposes of social networking service usage, “To communicate with current friends” (87.2%) is the most frequently cited, followed by “To find information on topics of interest” (63.4%).

Figure 2-3: Social networking service usage



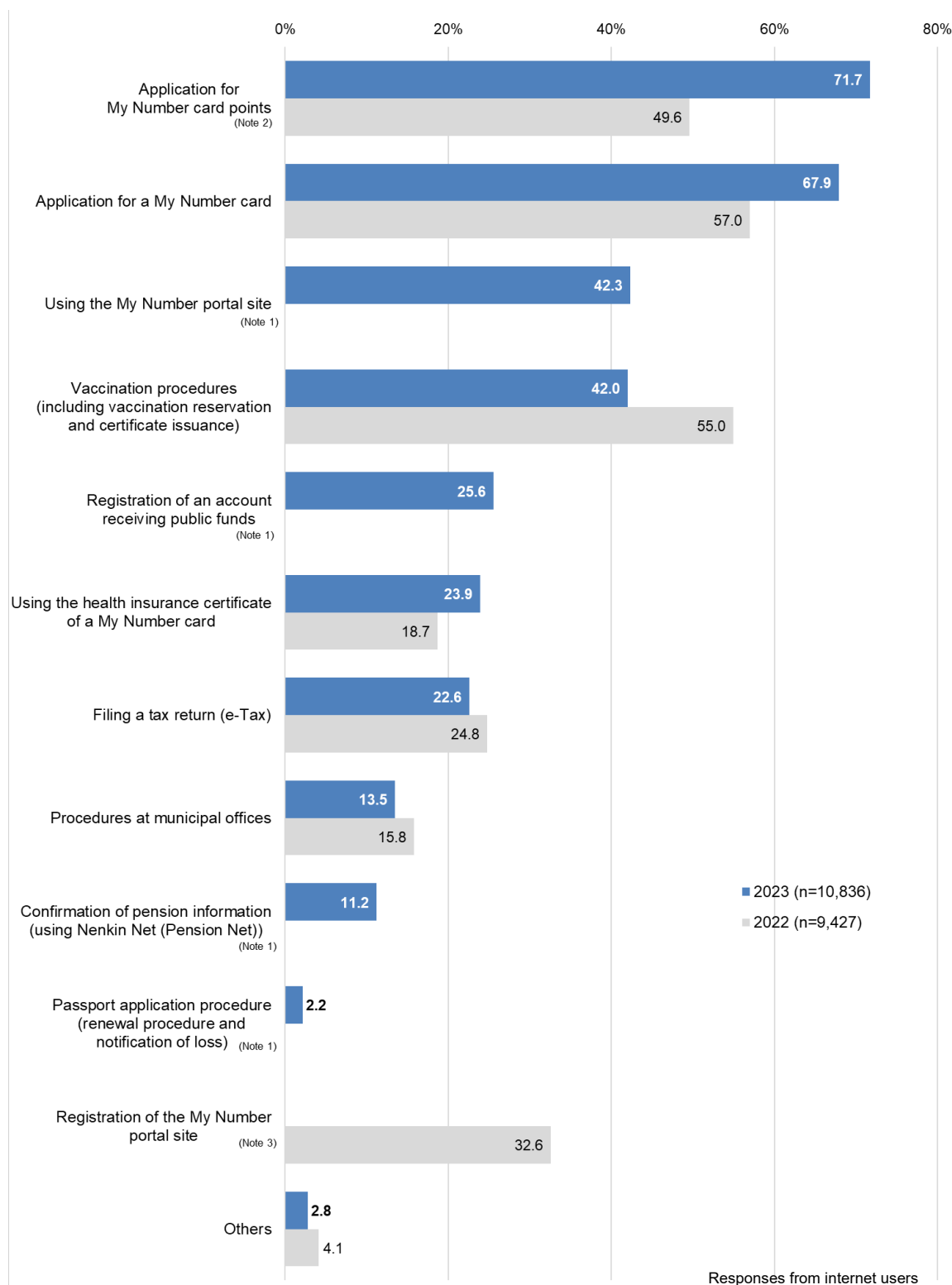
**Figure 2-4: Purposes of social networking service usage
(multiple responses accepted)**



(3) Use of e-government/municipality (individuals)

The most frequently used e-government/municipality procedure is “application for My Number card points” (71.7%), followed by “application for a My Number card” (67.9%). On the other hand, 42.0% use “vaccination procedures,” down 13.0 points from the previous year.

Figure 2-5: Administrative procedures used at e-government/municipality sites (multiple responses accepted)



Notes: 1. Added as a new survey item starting in 2023.
 2. Revised from “Reservation of or application for My Number card points.”
 3. Used only in the survey in 2022.

3. Introduction and Implementation of Telework

(1) Introduction of telework (businesses)

The share for businesses having introduced telework comes to 49.9%, down 1.8 points from the previous survey. The share for those that have not introduced telework but have specific plans to do so stands at 3.0%, being in a downward trend.

Among types of telework that have been introduced, “Working from home” is the most frequently cited (90.0%).

By industry, most (93.4%) businesses in the “Information and communications” industry have introduced telework. The telework introduction rate is also high in the “Financial/insurance” industry (81.3%).

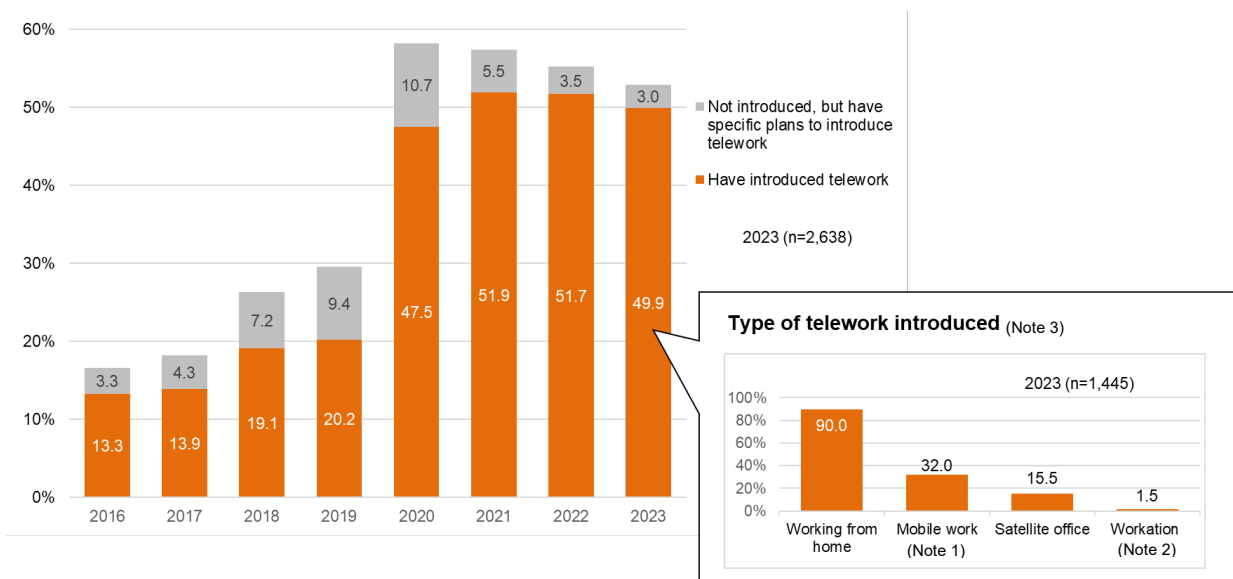
By capital size, businesses capitalized at 1 billion to less than 5 billion yen post the highest telework introduction rate of 88.3%. Of businesses that have introduced telework, those with telework employees’ percentage at 80% or more account for 12.2%, down 1.3 percentage points from the previous survey. Those with the percentage at less than 5% account for 36.9%, up 2.9 points.

The most frequently cited purpose for introducing telework is still to “Respond to COVID-19 (prevention of infections and business continuation),” cited by 79.1%. Also, to “Improve workers’ work-life balance” (42.7%) and “Prepare for business continuity in the event of emergencies” (42.0%) were cited more than previous year, reaching over 40%.

Concerning the intended effects of telework introduction, 83.8% recognize either “Very beneficial” or “Somewhat beneficial” effects.

Of businesses that have not implemented telework, “Work is not suited to telework” is cited by the largest percentage, 78.6%, as the reason for not introducing telework.

Figure 3-1: Telework introduction

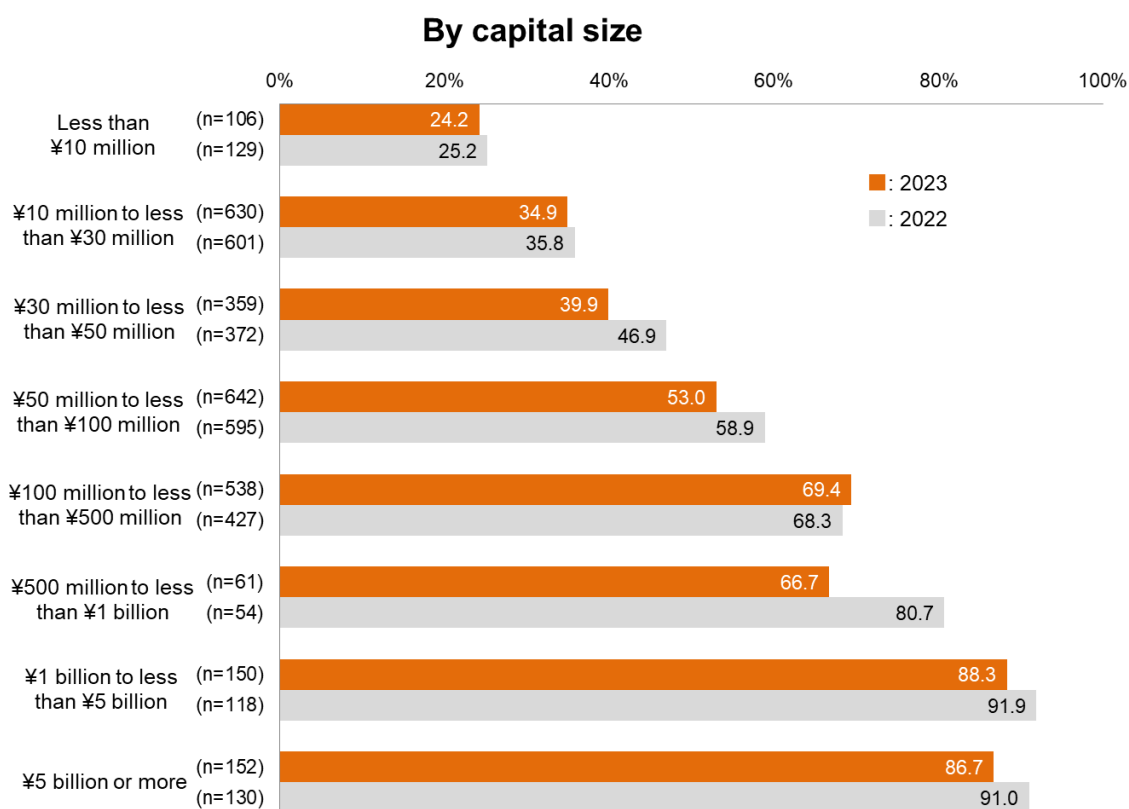
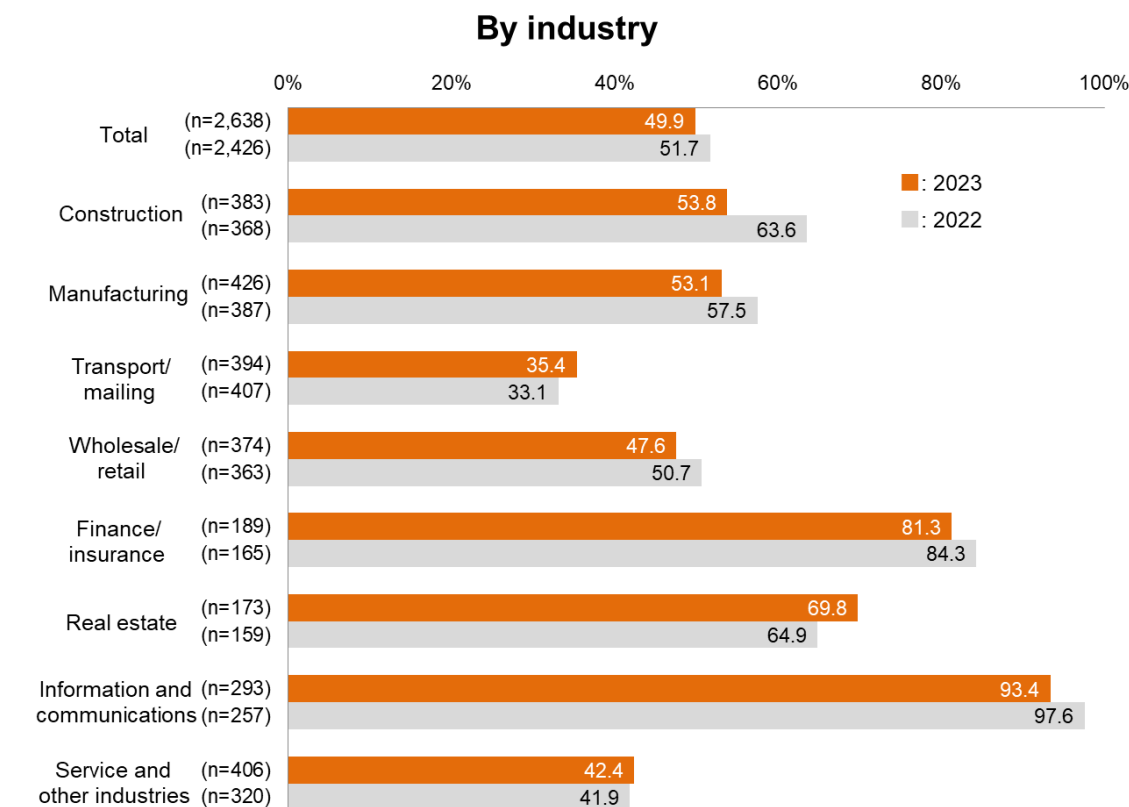


(Note 1) Mobile work refers to sales and other types of work done out of the office, including email and journal creation at transportation facilities or cafes.

(Note 2) Workation means that workers take advantage of telework to spend time on personal vacation while working at places other than their usual workplaces and homes.

(Note 3) The total includes respondents that made no response to the question on the type of telework introduced.

Figure 3-2: Telework introduction by industry, capital size and number of employees



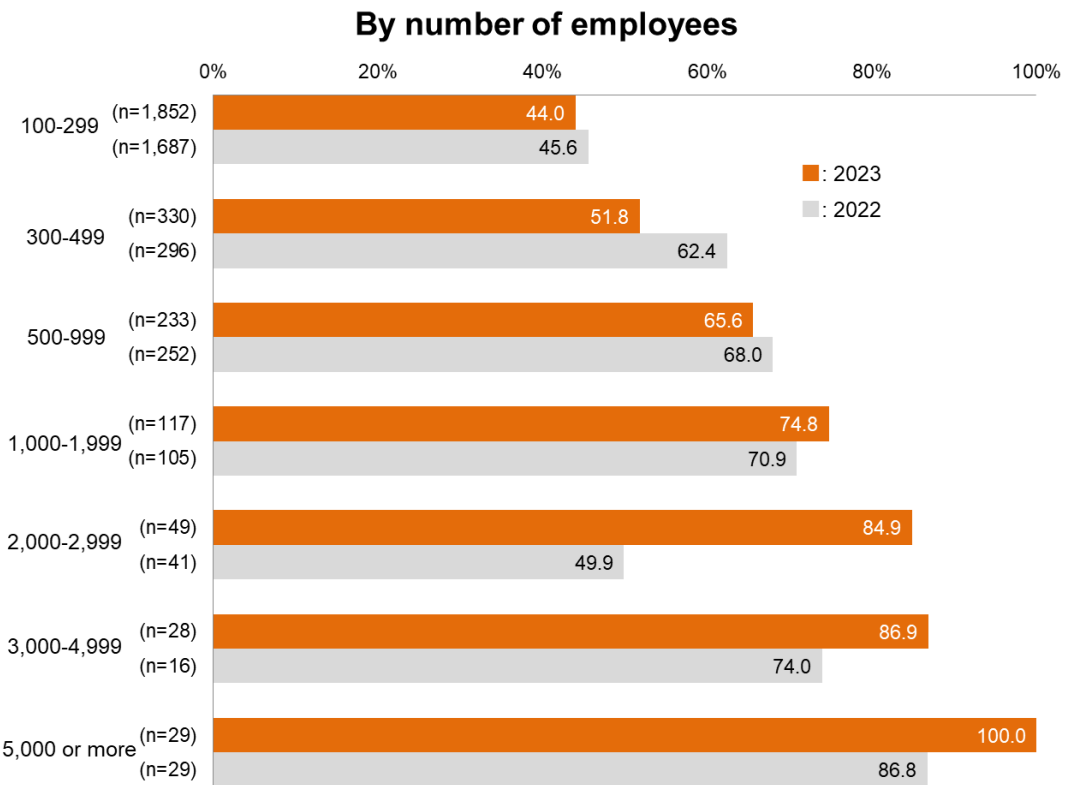


Figure 3-3: Percentage of telework employees

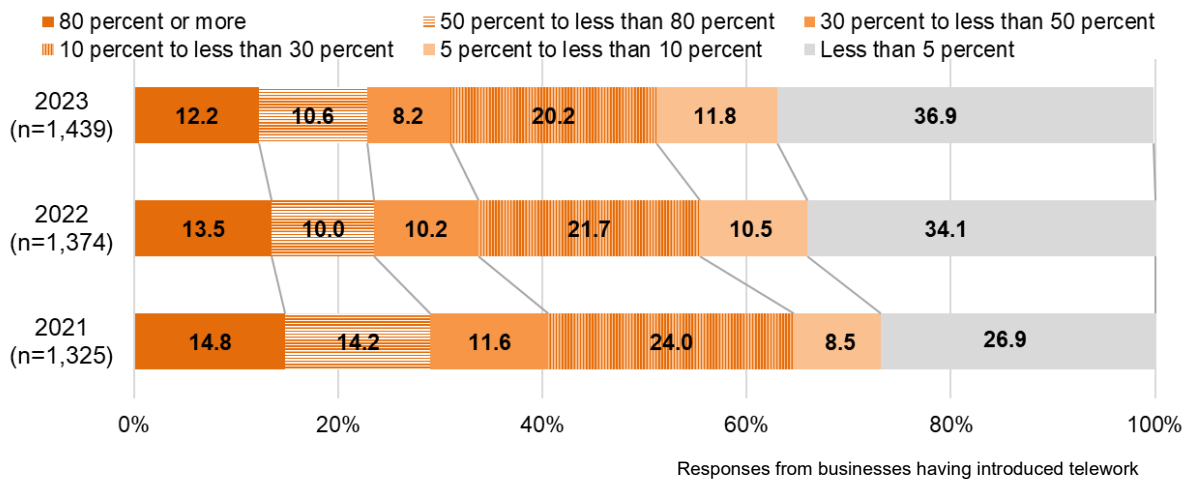


Figure 3-4: Purposes of introducing telework (multiple responses accepted)

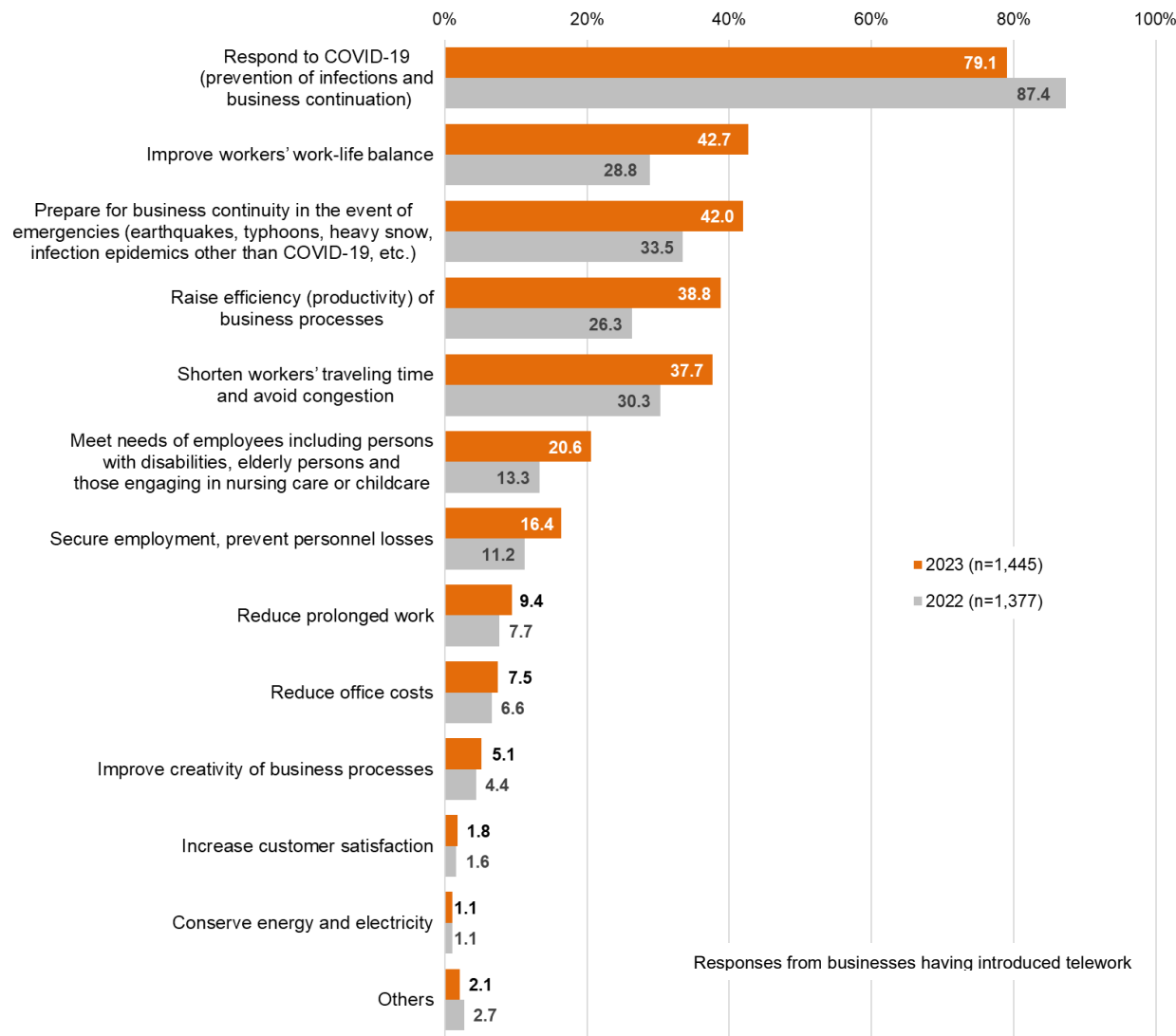


Figure 3-5: Telework benefits (2023)

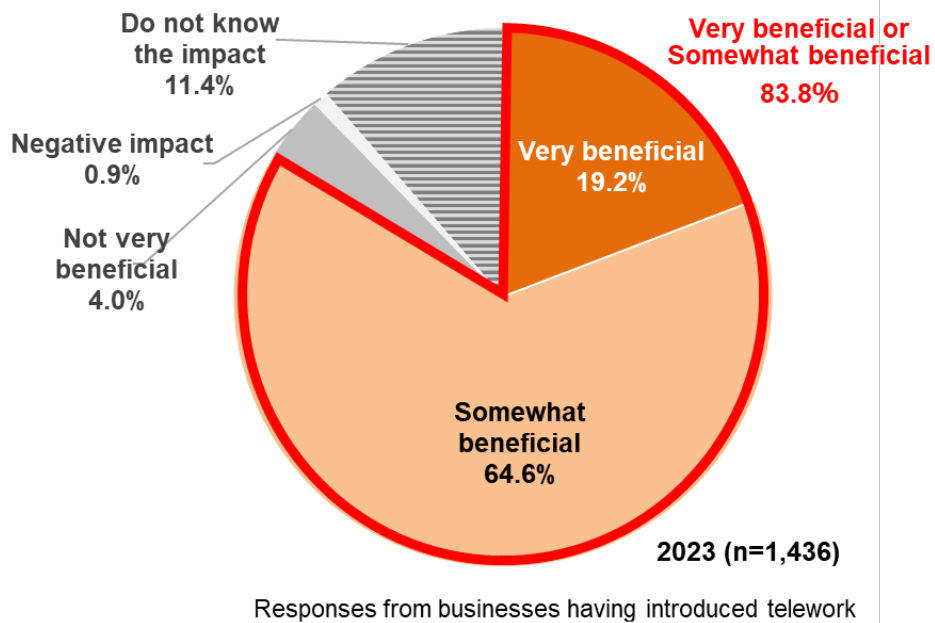
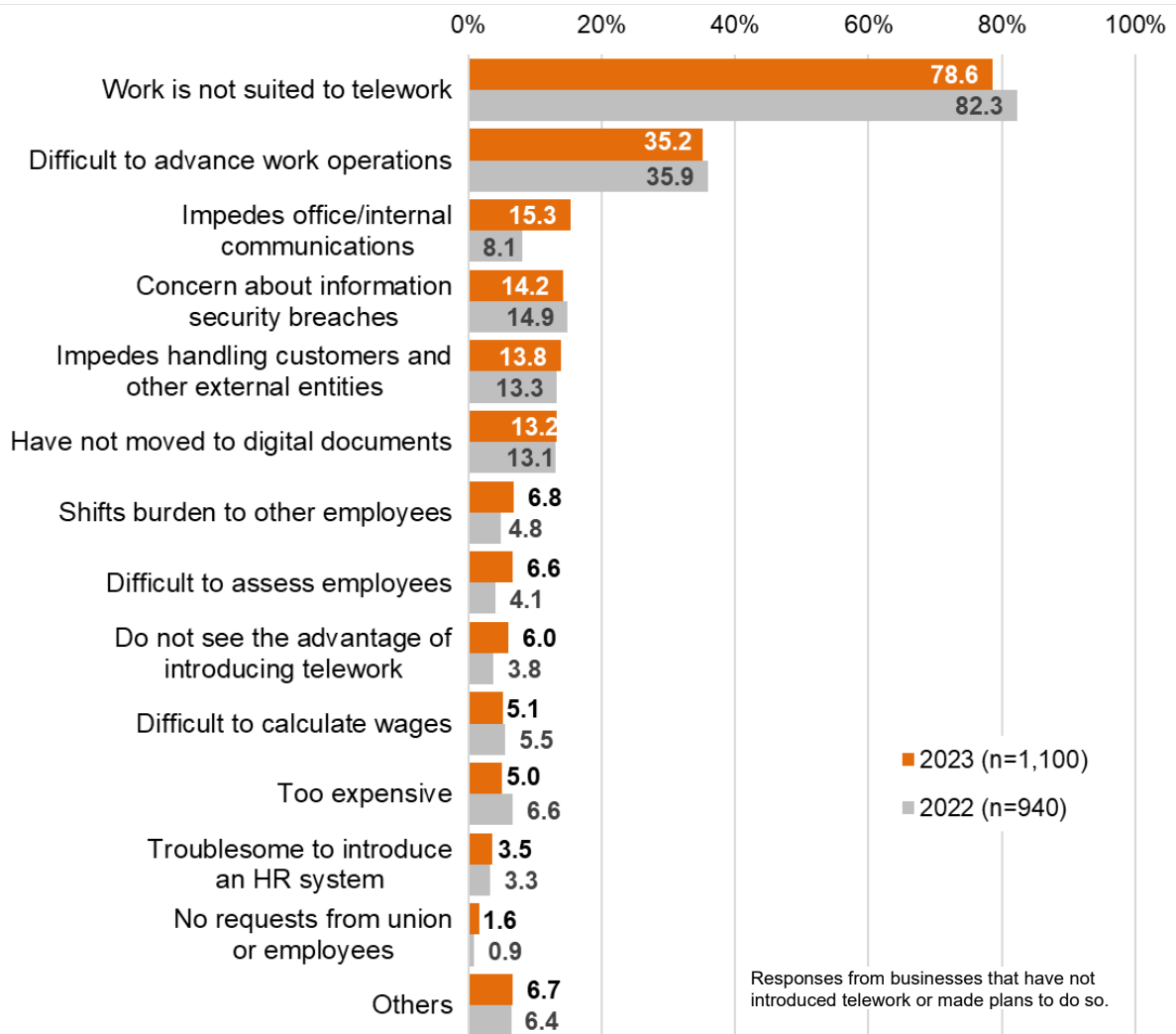


Figure 3-6: Reasons for not introducing telework (multiple responses accepted)



(2) Engagement in telework (individuals)

Of individuals aged 15 or older working for businesses or other organizations, 27.3% have the experience of engaging in telework. The percentage of respondents citing “Working from home” among telework types is the highest at 94.5%.

Of individuals who have not engaged in telework, those hoping to engage in telework account for 18.7%.

The most frequently cited reason for failing to engage in telework is that “Work is not suited to telework” (63.4%), followed by the reason that “There is not a telework system at the employer” (35.7%), accounting for most reasons for failing to engage in telework.

Figure 3-7: Having engaged and hoping to engage in telework (2023)

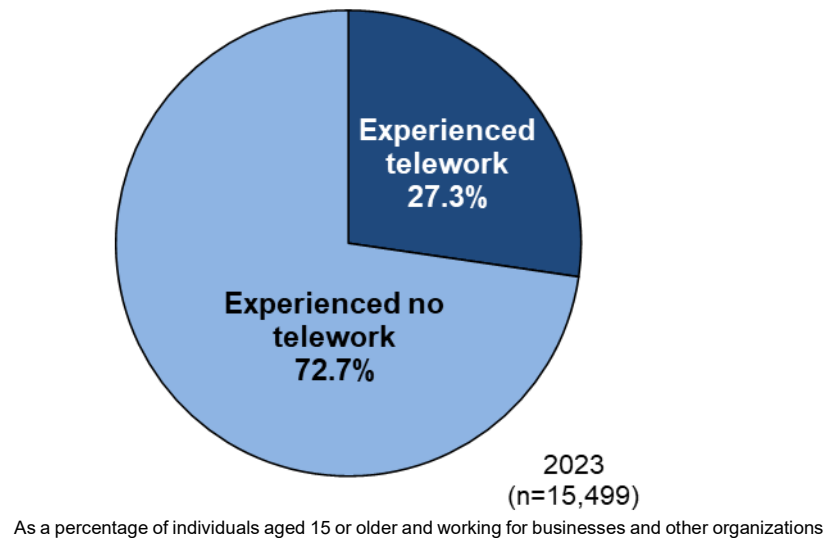
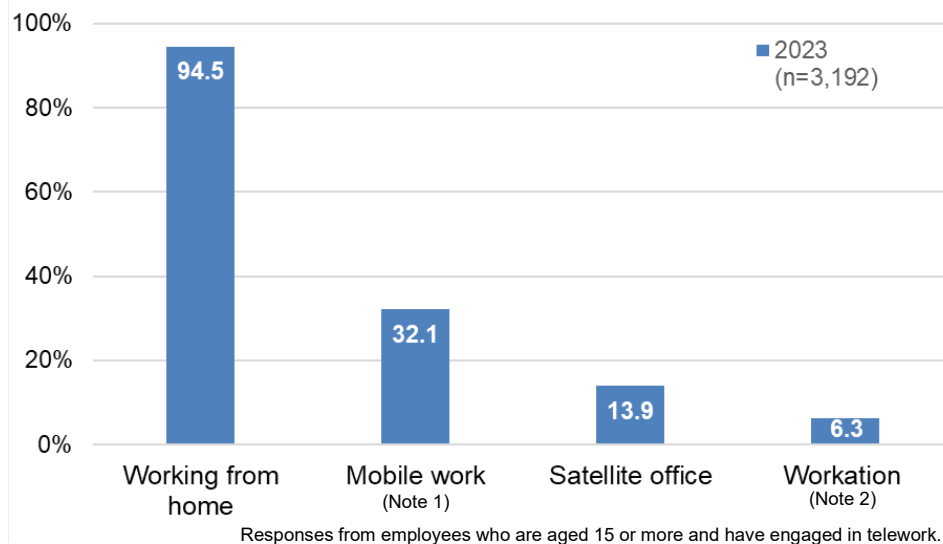


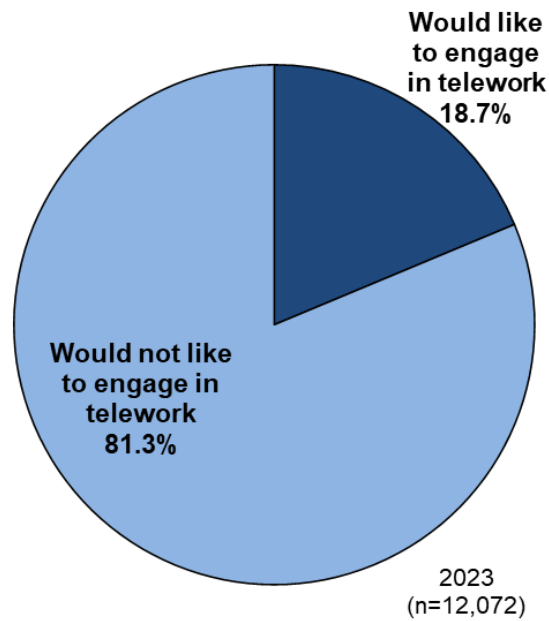
Figure 3-8: Type of telework (multiple responses accepted) (2023)



(Note 1) Mobile work refers to sales and other types of work done out of the office, including email and journal creation at transportation facilities or cafes.

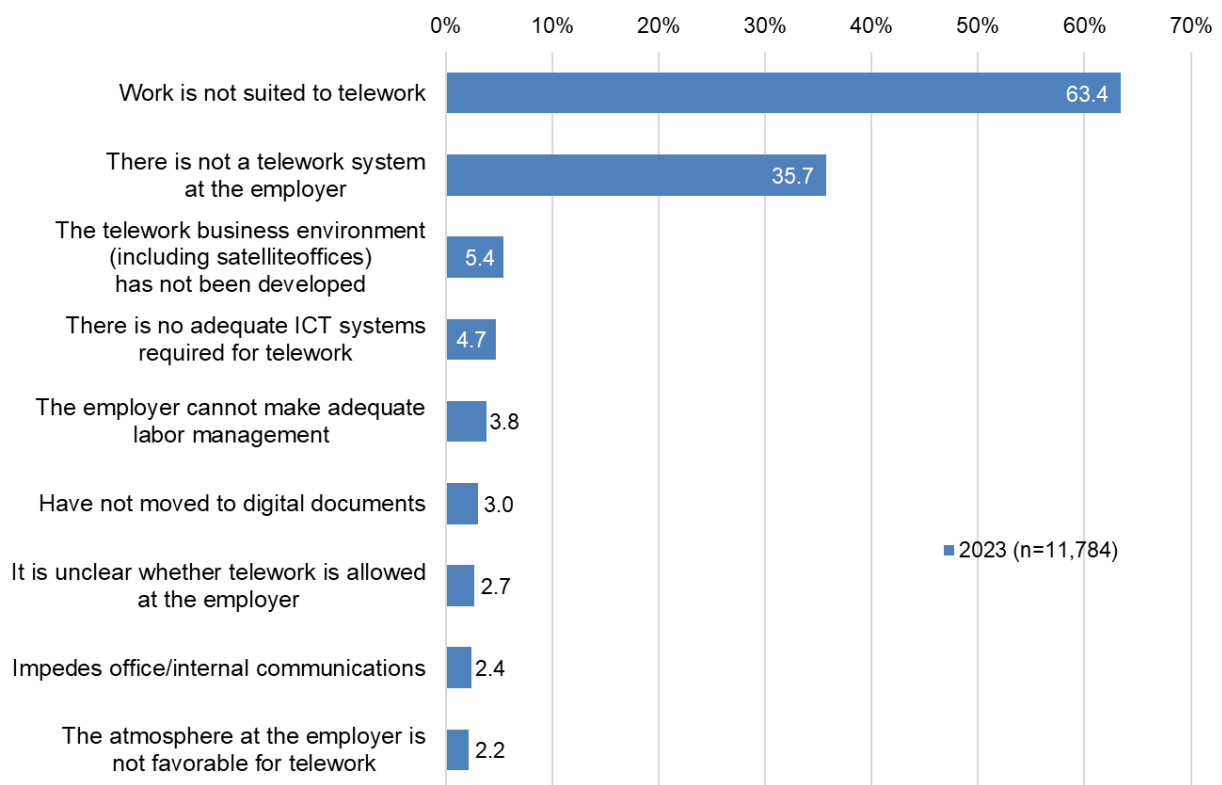
(Note 2) Workation means that workers take advantage of telework to spend time on personal vacation while working at places other than their usual workplaces and homes.

Figure 3-9: Whether or not individuals would like to engage in telework (2023)



Responses from employees who are aged 15 or more and have not engaged in telework.

Figure 3-10: Reasons for not engaging in telework (multiple responses accepted) (2023)



Responses from employees who are aged 15 or more and have not engaged in telework.

4. Current ICT Usage by Businesses
(1) Cloud computing service usage (businesses)

The share for businesses using at least some cloud computing services (hereafter referred to as “cloud services”) rises to 77.7%.

The most frequently cited among cloud services is “File storage / data sharing” (68.8%), followed by “Information sharing / portal” (55.8%) and “email” (55.1%).

The most frequently cited reason for using cloud services is that “The same services are available irrespective of location or equipment” (49.5%), followed by the reason that “No need to have internal asset and storage systems” (43.9%).

As for the effects of the use of cloud services, 88.4% recognized either “Very beneficial” or “Somewhat beneficial” effects.

Figure 4-1: Transitions in cloud service usage

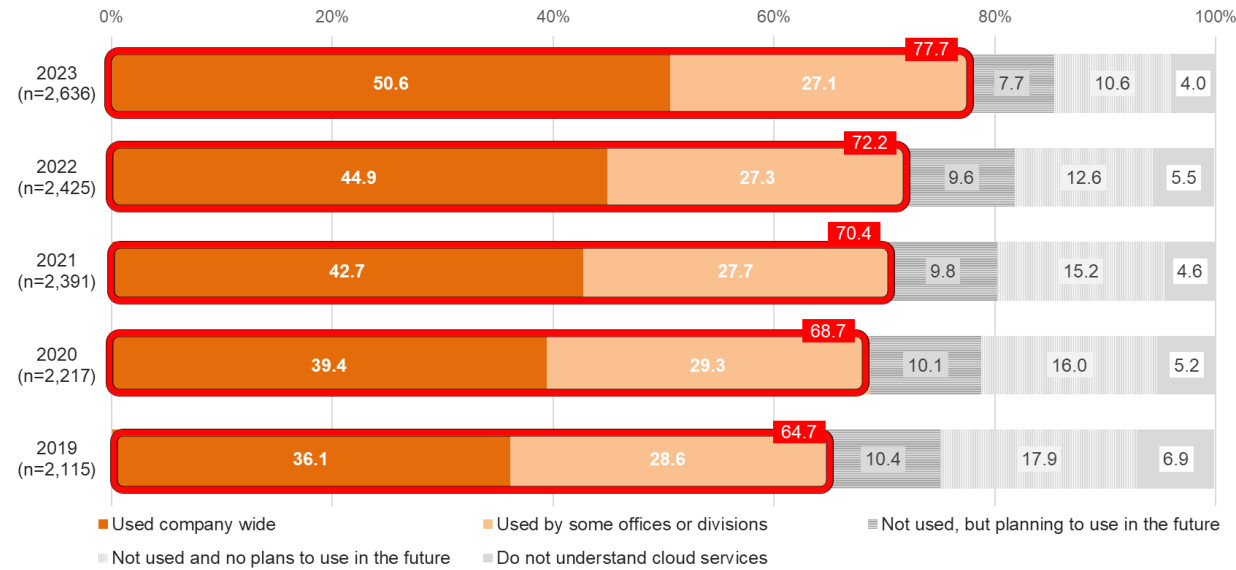


Figure 4-2: Cloud service usage by industry and capital size

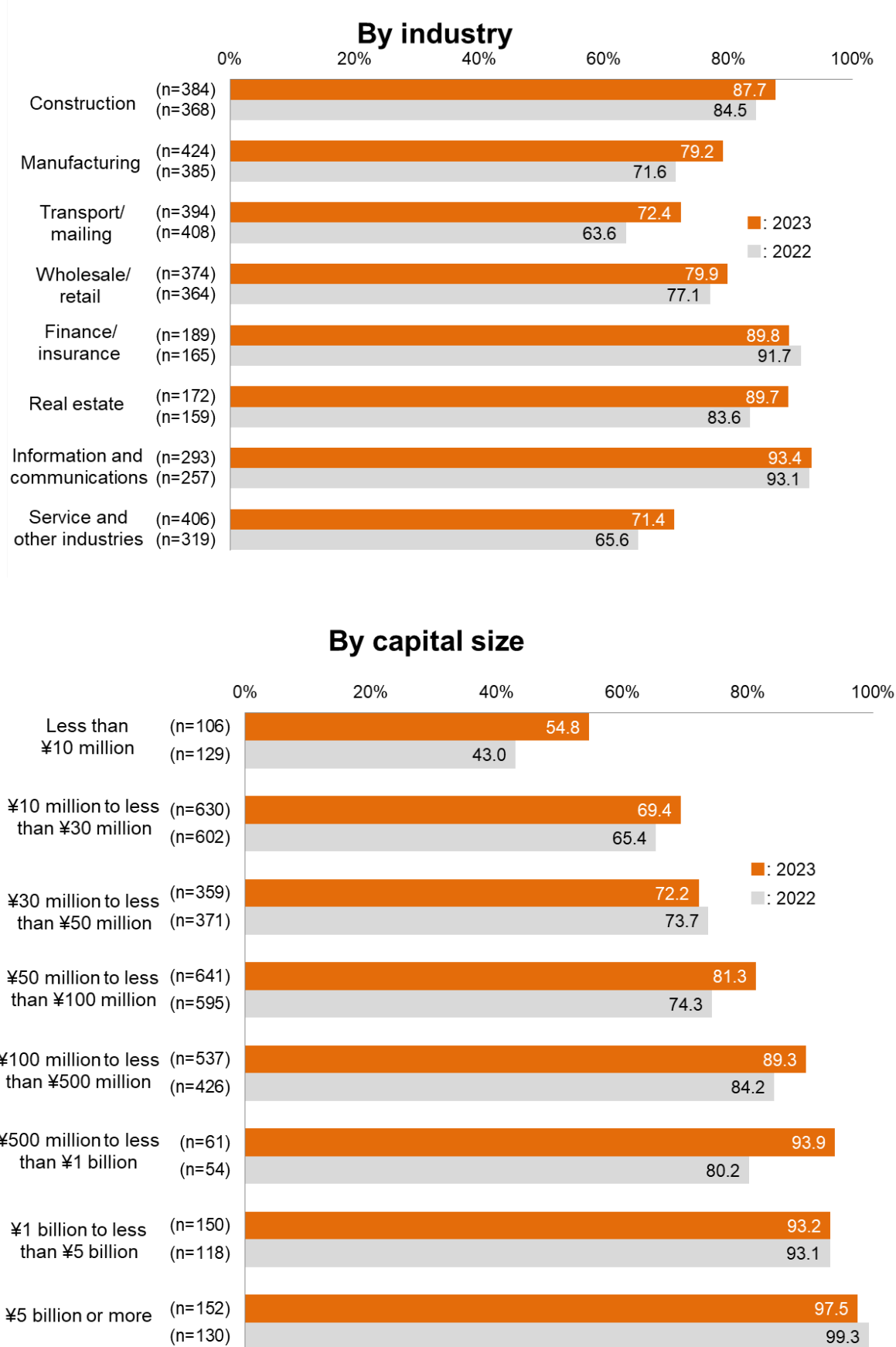


Figure 4-3: Cloud services used by businesses (multiple responses accepted)

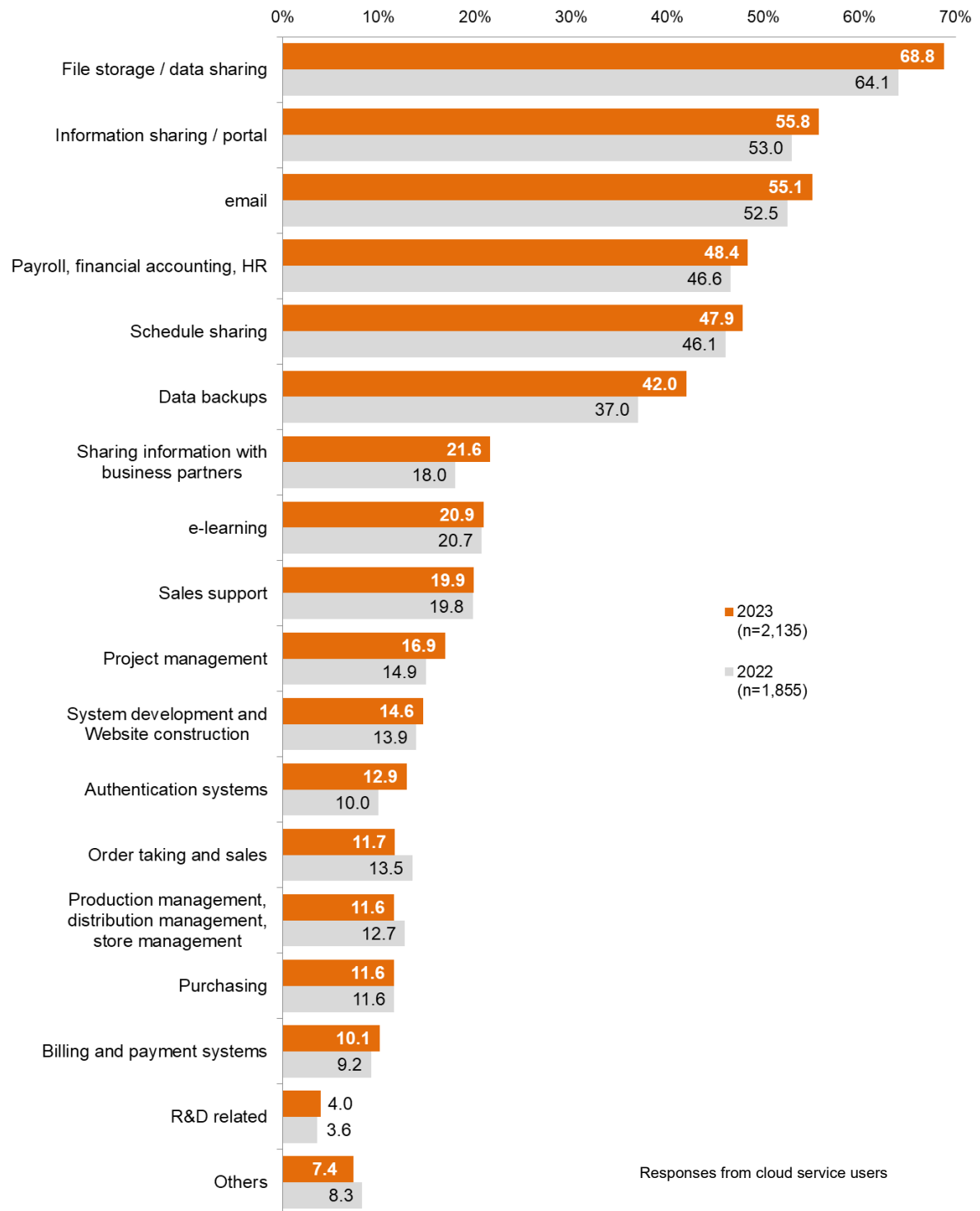


Figure 4-4: Reasons for using cloud services (multiple responses accepted)

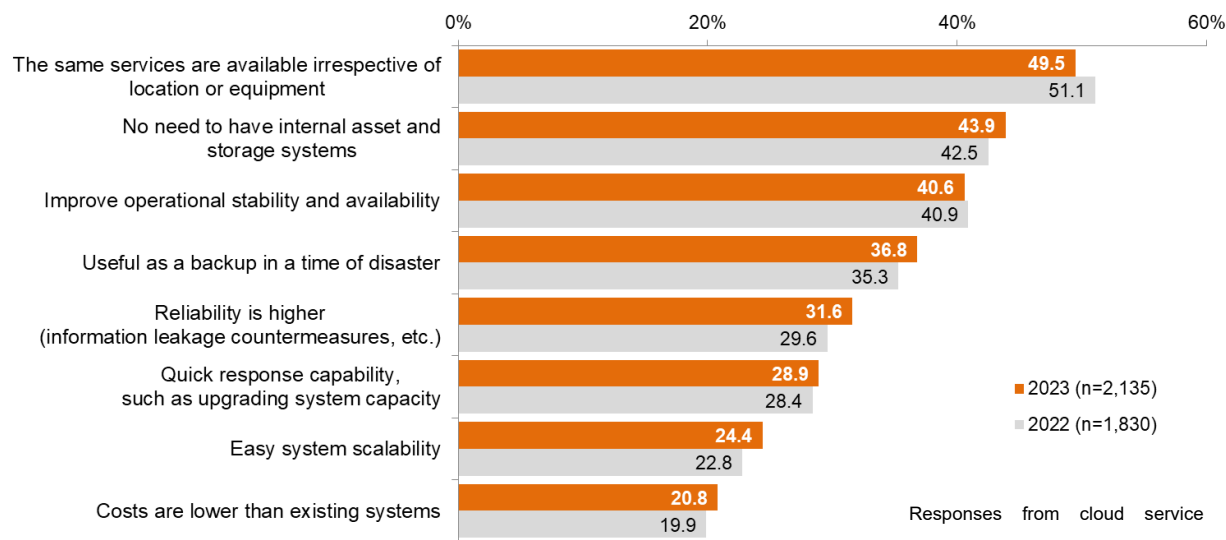
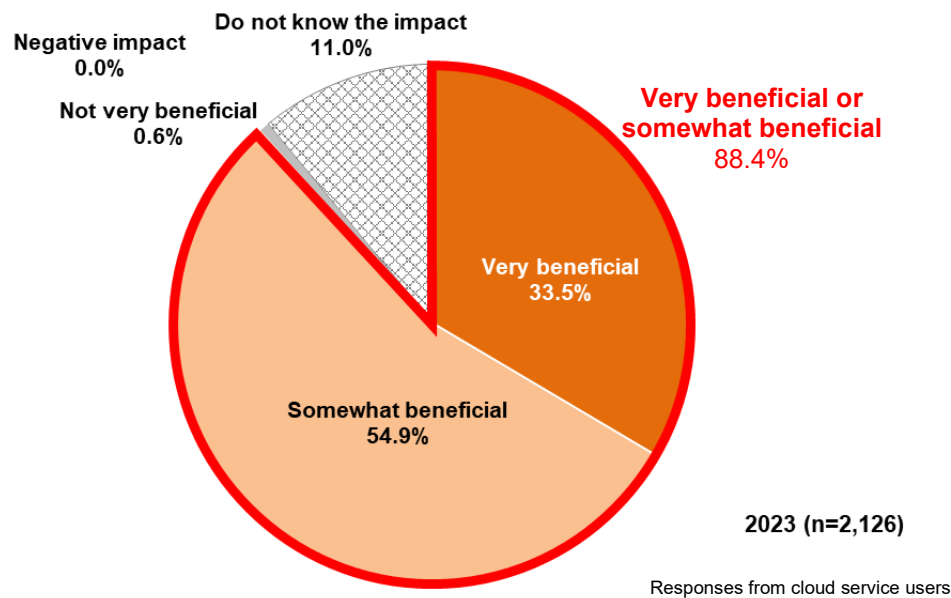


Figure 4-5: Impact of cloud computing services (2023)



(2) Introduction of IoT/AI systems/services (businesses)

Businesses that have introduced IoT and AI systems or services to collect and analyze digital data account for 16.9% of respondents. The percentage of those that have done so and are planning to do so is 28.1%. By industry, “Finance/Insurance” accounts for 34.7% with the highest rate.

Among purposes of digital data collection/analysis with IoT/AI systems, “Improvement of business efficiency/operations” is the most frequently cited (86.0%), followed by “Improvement of customer services” (35.1%) and “Overall optimization of business operations” (26.8%).

Those saying that the introduction of IoT and AI systems or services has been “Very effective” or “Somewhat effective” account for 82.7% of respondents

The most frequently cited among components of IoT and AI systems or services that have been introduced are “Surveillance cameras” (38.8%), followed by “Physical security devices” (32.6%) and “Sensors” (26.7%). Among networks for IoT and AI systems, the most frequently cited is “Wired networks” (71.8%), followed by “Wireless LAN (WiFi)” (58.7%).

Figure 4-6: Introduction of IoT and AI systems or services

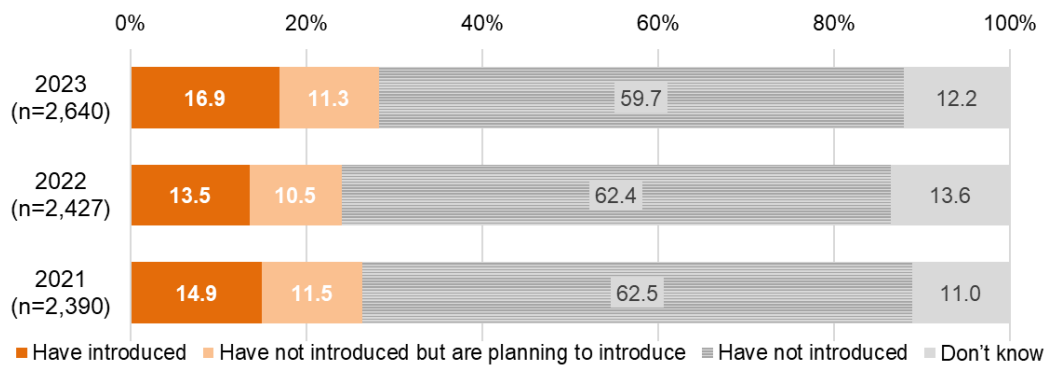
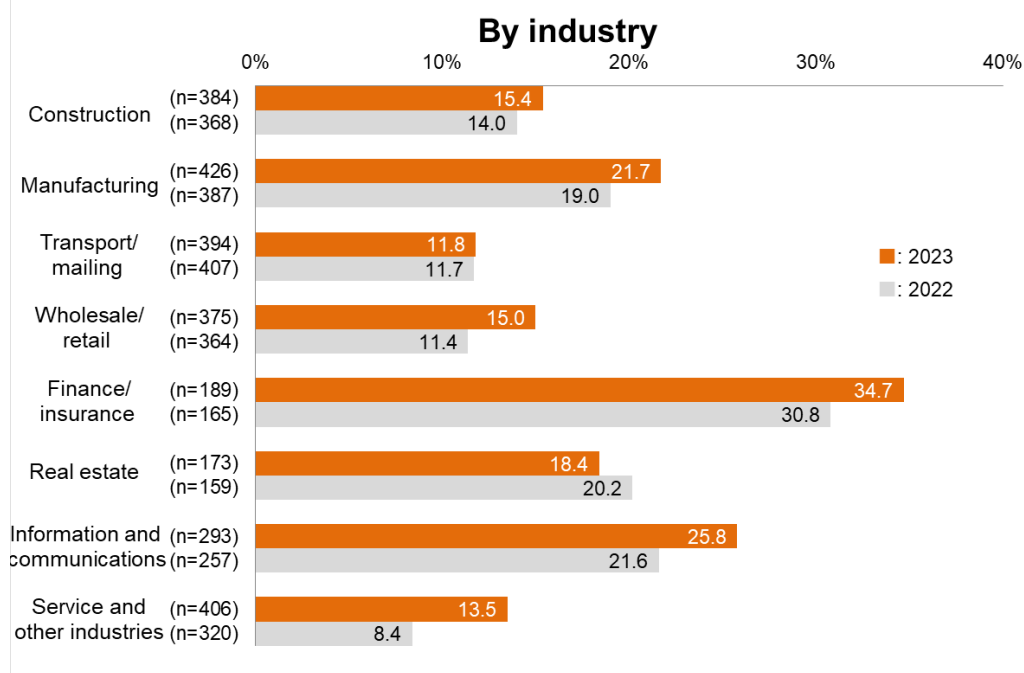


Figure 4-7: Introduction of IoT/AI system/service by industry and by capital size



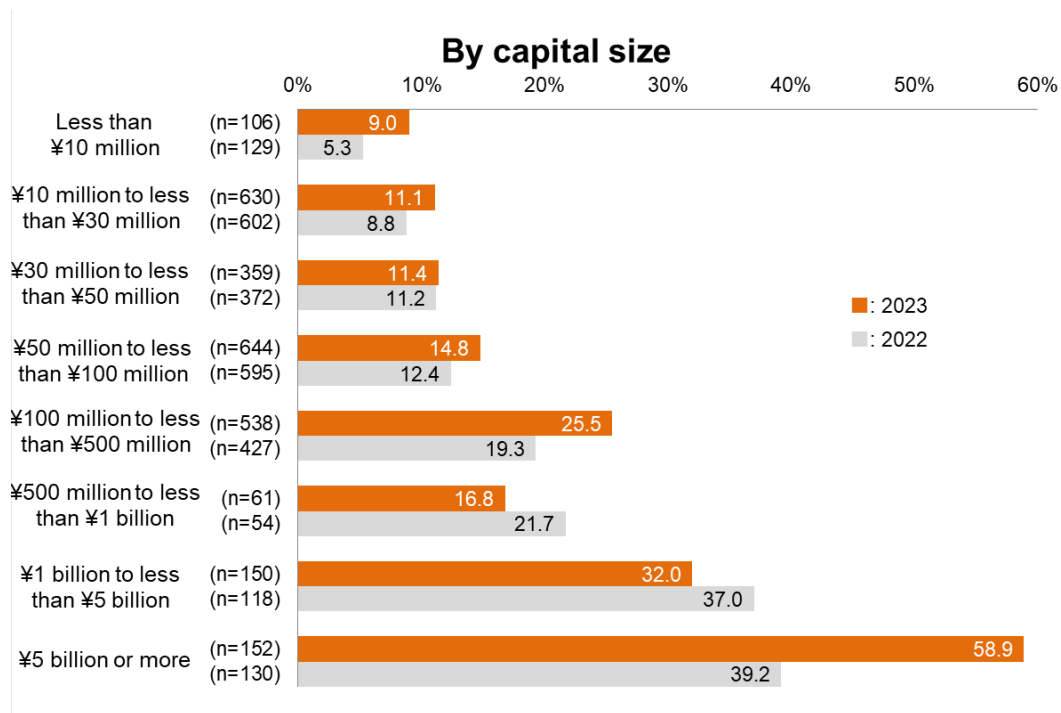


Figure 4-8: Purposes of digital data collection/analysis (multiple answers accepted)

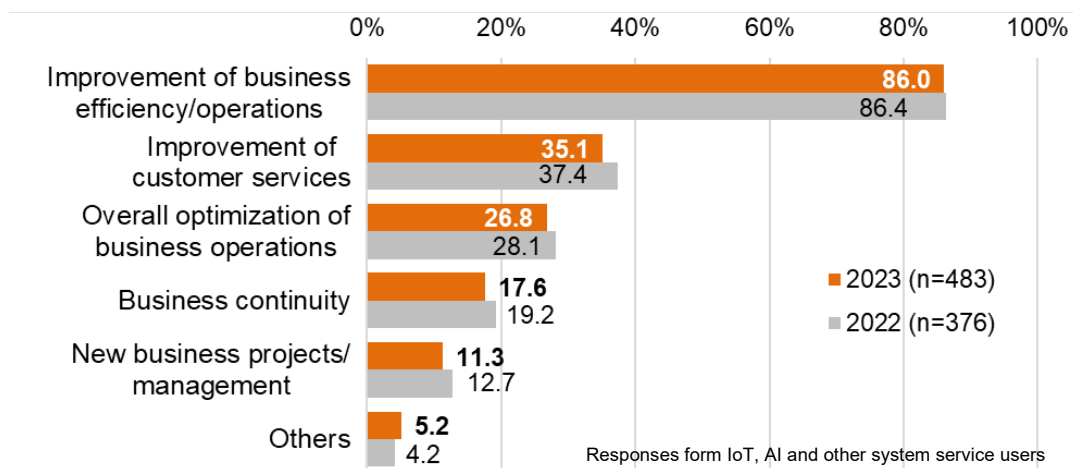


Figure 4-9: Effects of IoT/AI system/service introduction (2023)

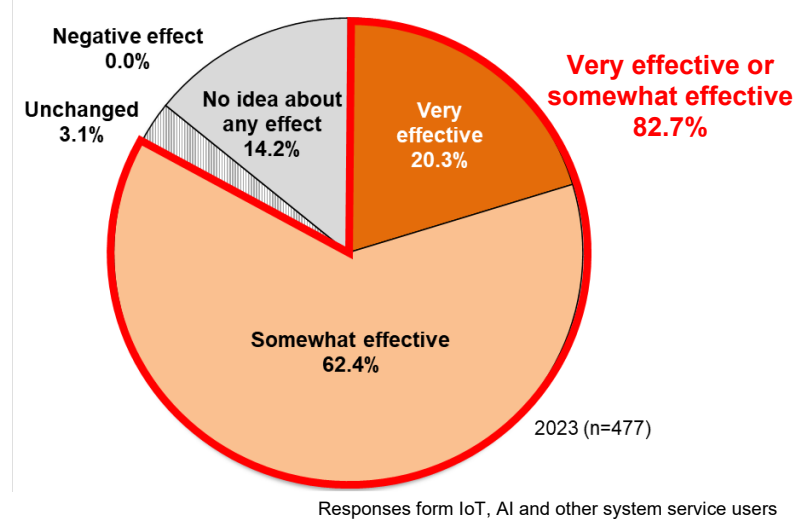


Figure 4-10: Components of AI/IoT systems/services (multiple answers accepted)

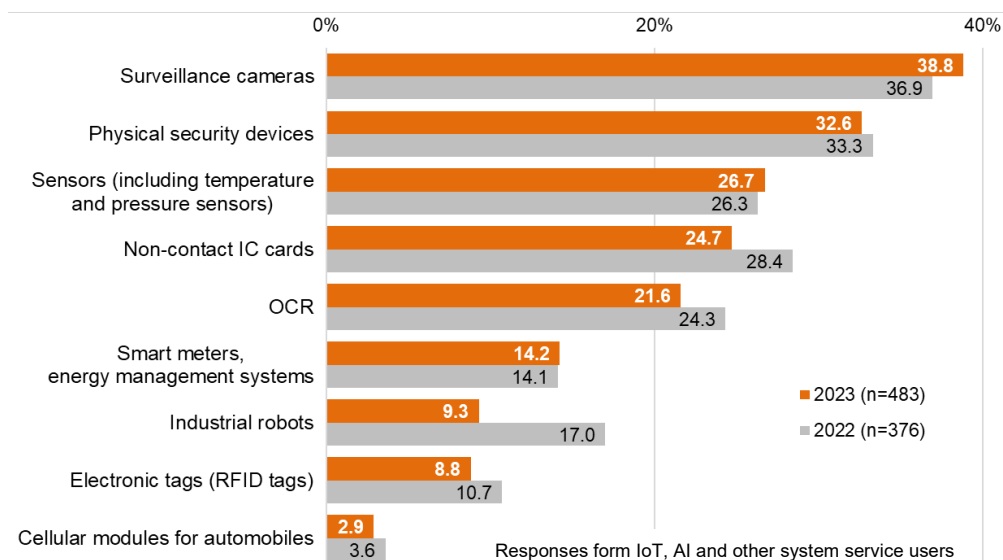
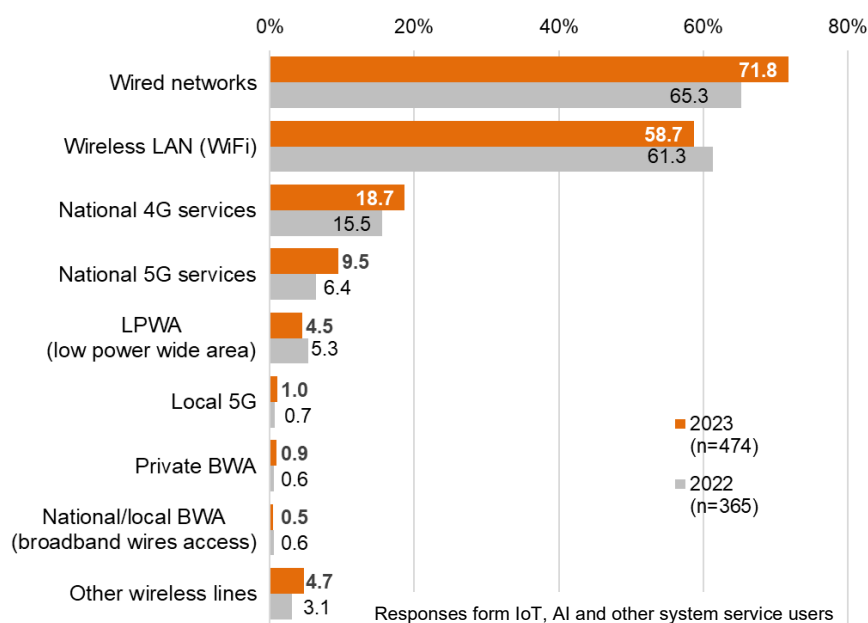


Figure 4-11: Networking IoT and AI systems (multiple answers accepted)

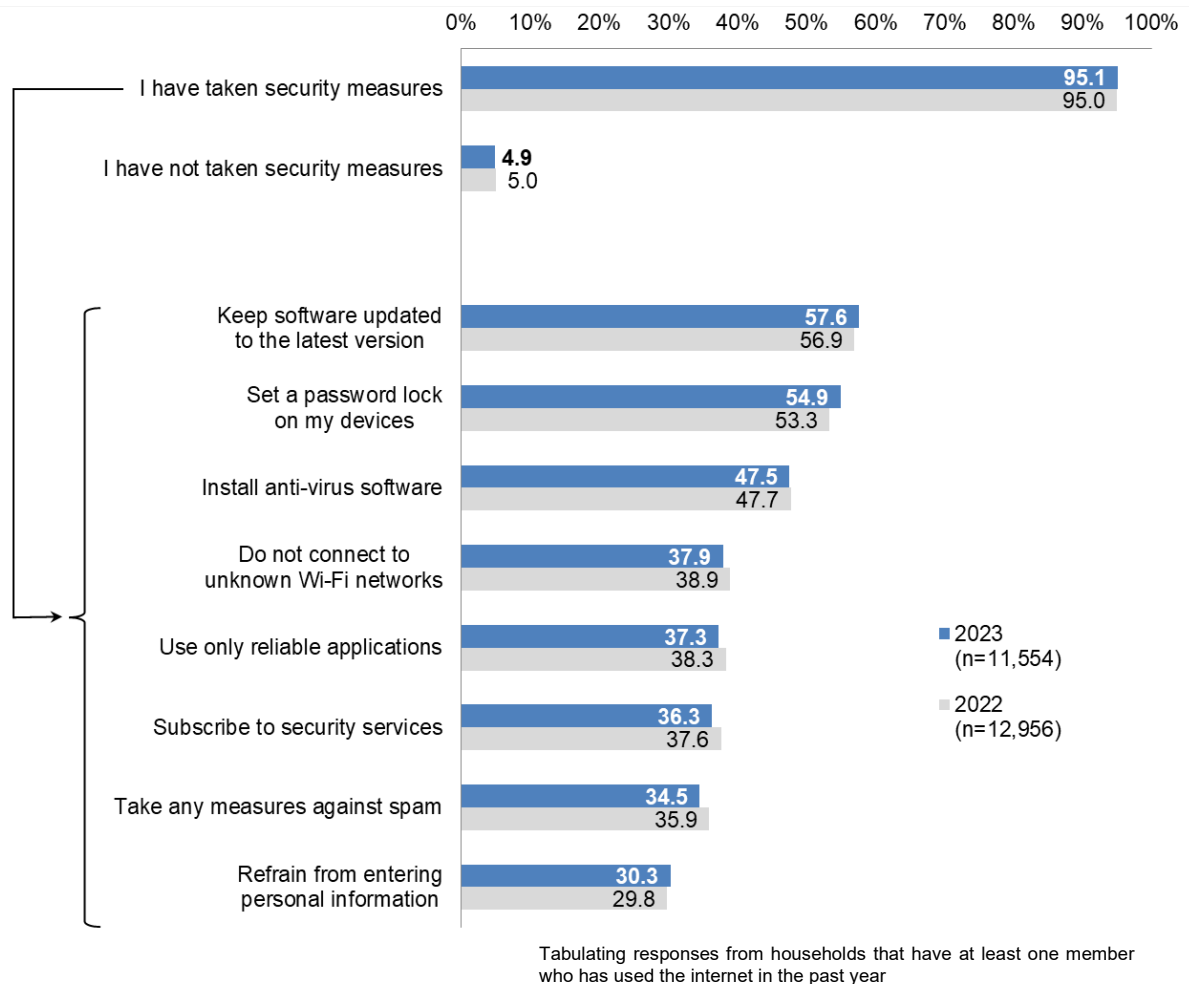


5. Safety and Security Efforts

(1) State of security measures (households)

Of households that use the internet, 95.1% have taken some security measures. The most common security measures taken are “Keep software updated to the latest version,” at 57.6%. This is followed by “Set a password lock on my devices” (54.9%) and “Install anti-virus software” (47.5%).

Figure 5-1: State of security measures (multiple responses accepted)

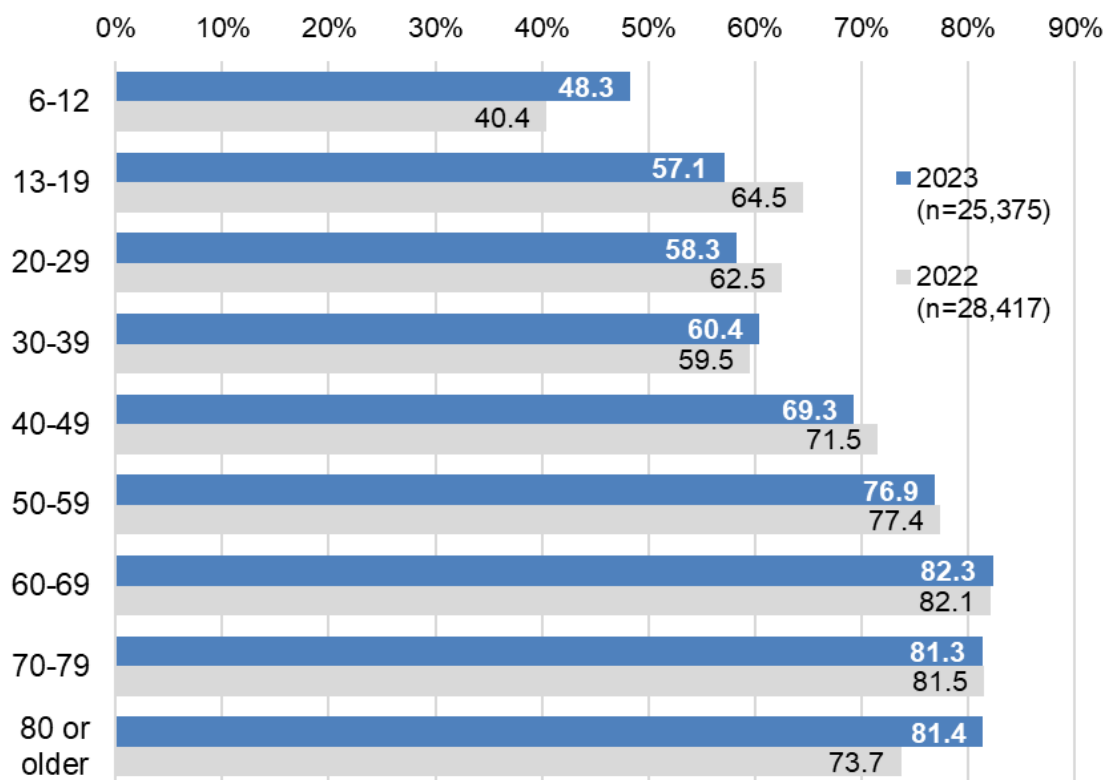
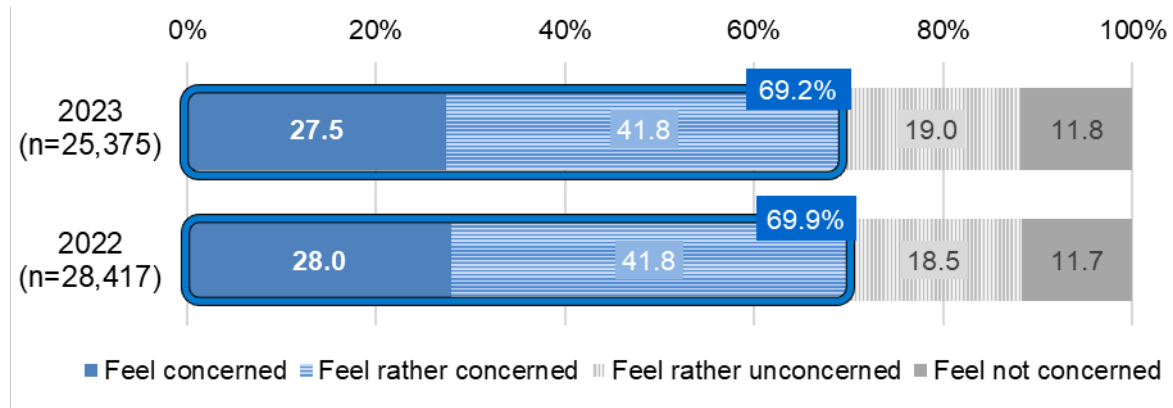


(2) Concerns about using the internet (individuals)

The combined percentage of internet users who “Feel concerned” and “Feel rather concerned” during internet use stands at 69.2%.

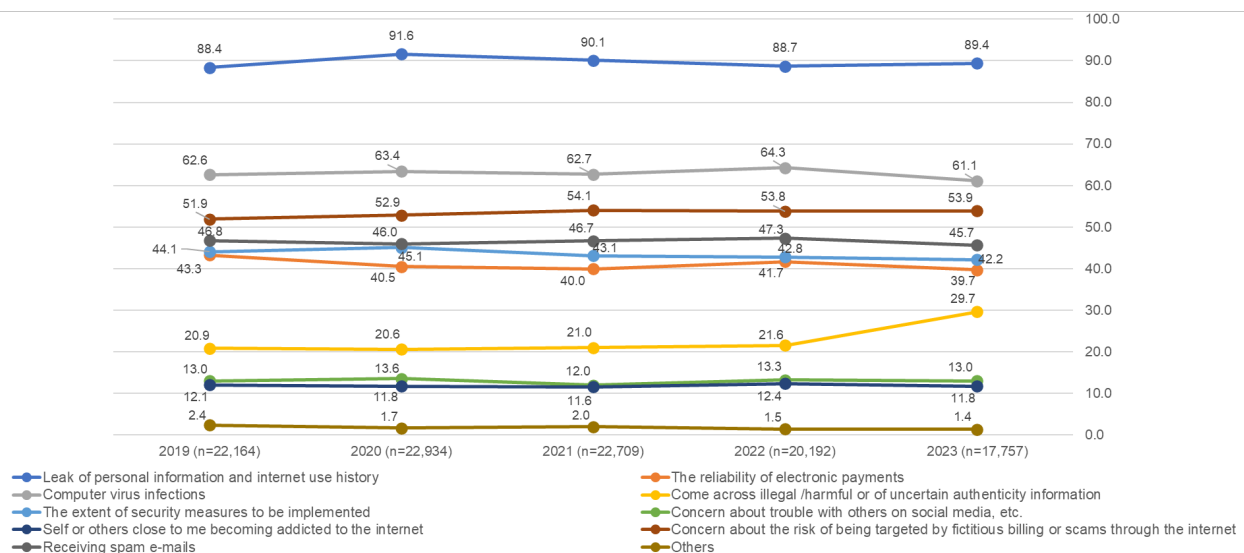
Regarding specific concerns, the percentage of those who chose “Come across illegal/harmful or of uncertain authenticity information” rose steeply, by 8.1 points. By age group, the percentage of those who chose “Leak of personal information and internet use history” was the highest in all age groups. “Concern about trouble with others on social media, etc.” was frequently cited in younger age groups, while “The reliability of electronic payments” was frequently cited in the age groups of 20 to 59 years old.

Figure 5-2: Concerns about using the internet



Responses from internet users

**Figure 5-3: Types of concerns about using the internet
(multiple responses accepted)**



(multiple responses accepted)
Responses from individuals who have used the internet and have concerns about using the internet

Unit: %

		Total participants (n)	1st	2nd	3rd	4th	5th
[Overall]		17,757	Leak of personal information and internet use history 89.4	Computer virus infections 61.1	Concern about the risk of being targeted by fictitious billing or scams through the internet 53.9	Receiving spam e-mails 45.7	The extent of security measures to be implemented 42.2
By age group	6-12	599	Leak of personal information and internet use history 80.5	Computer virus infections 33.9	Come across illegal / harmful or of uncertain authenticity information 30.9	Concern about the risk of being targeted by fictitious billing or scams through the internet 28.0	Concern about trouble with others on social media, etc. 27.8
	13-19	947	Leak of personal information and internet use history 89.0	Computer virus infections 50.2	Concern about the risk of being targeted by fictitious billing or scams through the internet 37.4	Concern about trouble with others on social media, etc. 30.2	Receiving spam e-mails 28.5
	20-29	1,320	Leak of personal information and internet use history 92.5	Computer virus infections 62.0	Concern about the risk of being targeted by fictitious billing or scams through the internet 52.6	Receiving spam e-mails 39.3	The reliability of electronic payments 37.5
	30-39	1,874	Leak of personal information and internet use history 90.5	Computer virus infections 63.9	Concern about the risk of being targeted by fictitious billing or scams through the internet 53.2	The extent of security measures to be implemented 45.8	The reliability of electronic payments 42.5
	40-49	2,802	Leak of personal information and internet use history 93.0	Computer virus infections 64.4	Concern about the risk of being targeted by fictitious billing or scams through the internet 51.3	The reliability of electronic payments 48.1	The extent of security measures to be implemented 45.0
	50-59	3,538	Leak of personal information and internet use history 92.1	Computer virus infections 68.1	Concern about the risk of being targeted by fictitious billing or scams through the internet 58.5	Receiving spam e-mails 50.1	The reliability of electronic payments 47.4
	60-69	3,877	Leak of personal information and internet use history 89.5	Computer virus infections 63.8	Concern about the risk of being targeted by fictitious billing or scams through the internet 62.4	Receiving spam e-mails 57.4	The extent of security measures to be implemented 47.2
	70-79	2,317	Leak of personal information and internet use history 83.6	Concern about the risk of being targeted by fictitious billing or scams through the internet 58.2	Receiving spam e-mails 56.9	Computer virus infections 55.8	The extent of security measures to be implemented 44.8
	80 or older	483	Leak of personal information and internet use history 72.9	Receiving spam e-mails 56.3	Concern about the risk of being targeted by fictitious billing or scams through the internet 51.9	Computer virus infections 47.8	The extent of security measures to be implemented 37.8

(multiple responses accepted)
Responses from individuals who have used the internet and have concerns about using the internet

(3) Security breaches against information-communication networks and security measures implemented (businesses)

As for security breaches that occurred in the past year during the use of information-communication networks, the percentage of businesses that “Sustained some kind of loss” comes to 53.9%, down 8.4 points. The most frequently cited type of security breach is “Have received targeted emails” (cited by 36.1%), followed by “Discovered or infected by a computer virus” (28.4%).

The percentage of businesses that implement some security measures is 98.5%. By type of security measure, the implementation rate is the highest at 82.9% for “Install anti-virus programs on computers and other devices (operating systems, software, etc.)”, followed by 61.4% for “Install anti-virus programs on servers” and 58.0% for “Control access with IDs, passwords, etc.”

Figure 5-4: Security breaches that occurred in the past year during the use of information-communication networks (multiple responses accepted)

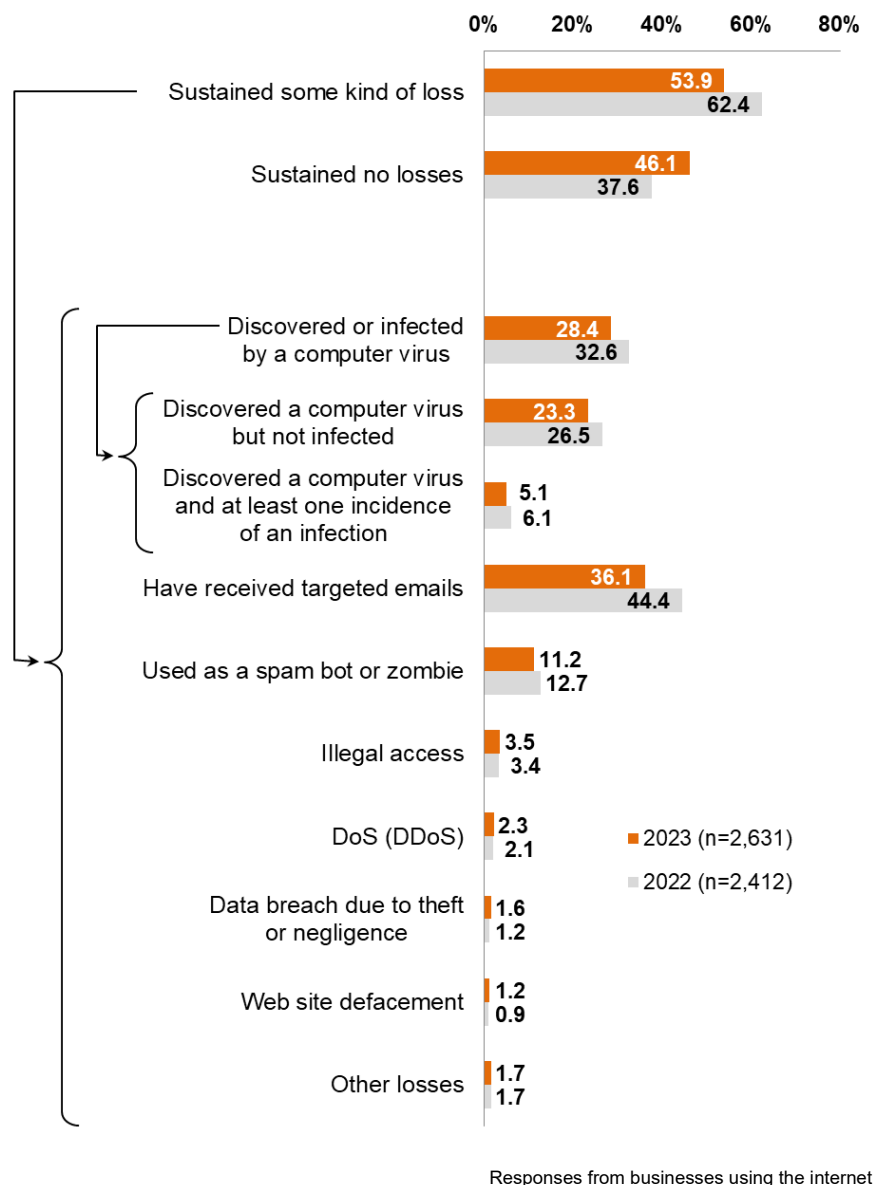
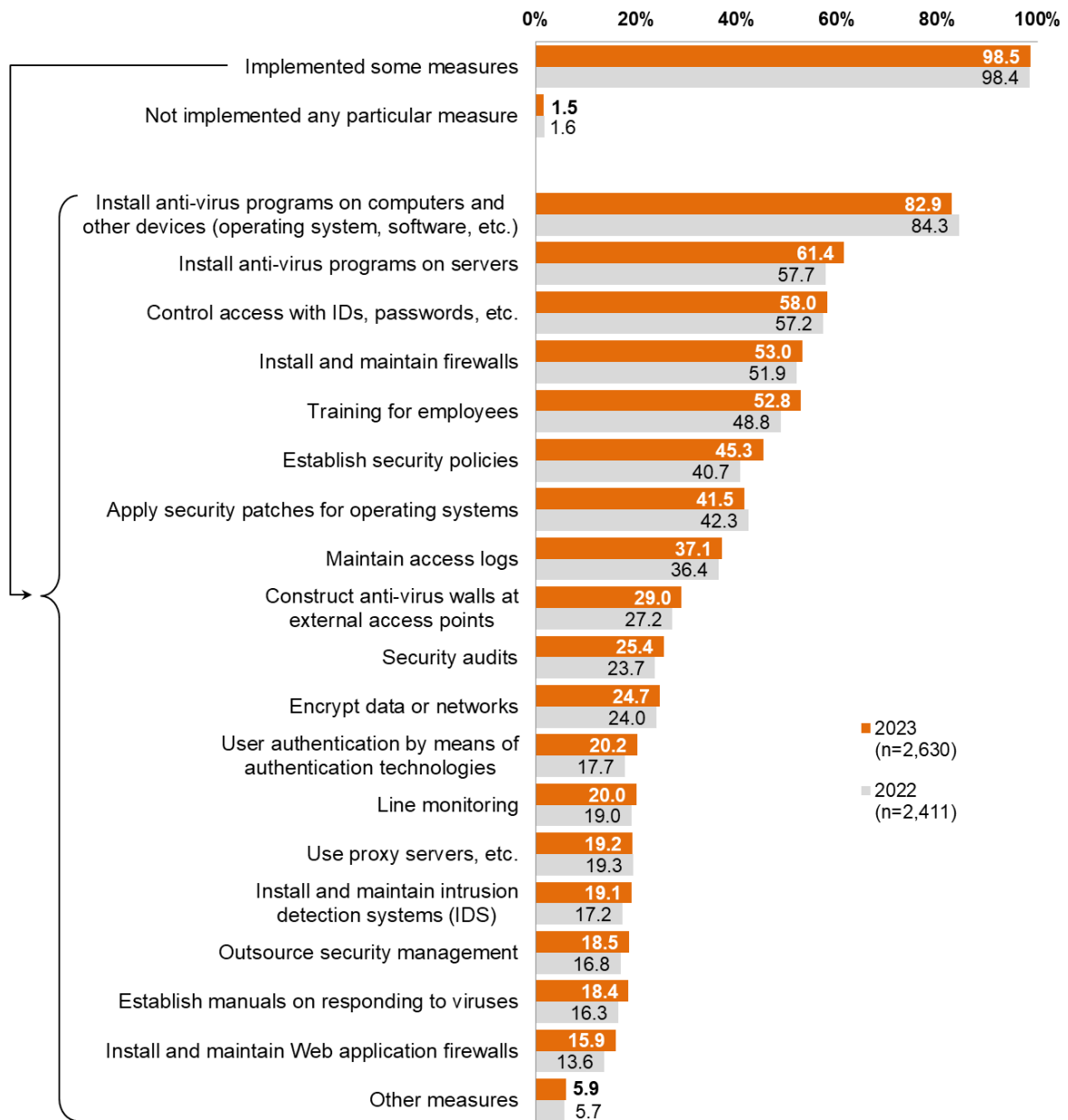


Figure 5-5: State of security measures (multiple responses accepted)

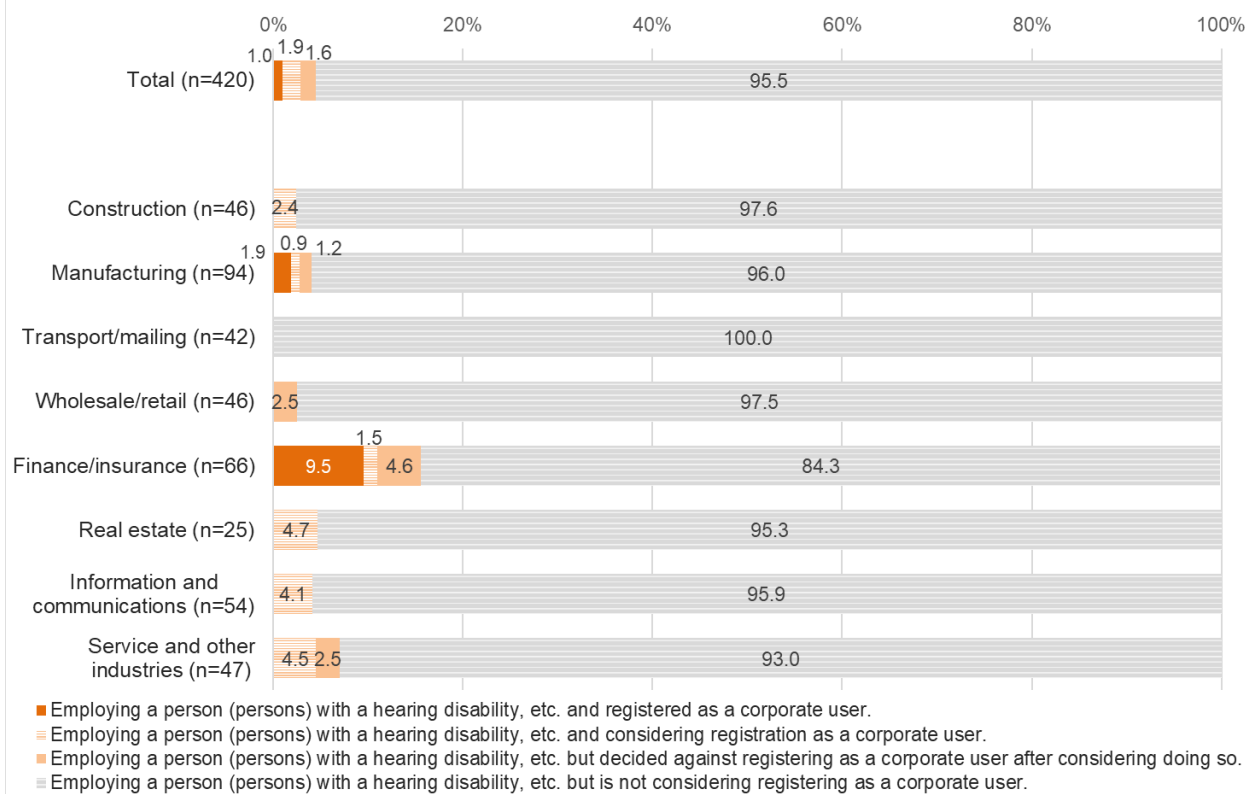


Responses from businesses using the internet

6. Current status of Telecommunications Relay Service

Currently, around 4.5% of the businesses surveyed have registered or are considering registering for Telecommunications Relay Service as a corporate user. By industry, the percentage of businesses that employ a person (persons) with a hearing disability, etc. and that have registered as a corporate user is around 10% in the finance/insurance industry.

Figure 6-1: Status of registering and considering registering for Telecommunications Relay Service as a corporate user



Responses from businesses that employ a person (persons) with a hearing disability, etc.