PRESS RELEASE

Ministry of Internal Affairs and Communications

June 18, 2021

“Communications Usage Trend Survey” in 2020 Compiled

The Ministry of Internal Affairs and Communications (MIC, Japan) has compiled its Communications Usage Trend Survey, a survey of the communication services usage by households and businesses at the end of August 2020.

For the highlights and an outline of the survey, please see Attachment 1 and Attachment 2, respectively.

Details of the survey will be posted on the website for the MIC’s Information & Communications Statistics Database and e-Stat, and released in a machine-readable data format (CSV format).

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

[Highlights of the Survey]

1 The smartphone ownership rate among households scores a robust increase to 86.8%. The rate among individuals also rises. In contrast, the ownership rate for other mobile phones and personal handy-phone systems continues a downtrend.

2 Individuals who use smartphones for the internet continue to be more than those using personal computers. More than 90% of those aged between 20 and 39 use smartphones for the internet.

3 The share for businesses having introduced telework mainly for work from home increases rapidly, more than doubling from the previous year to 47.5%. The share tops 90% in the information and communications industry. The most frequently cited purpose for introducing telework is business continuation in emergency situations (including an infectious disease outbreak), cited by nearly 70%.

4 The share for businesses having introduced cloud computing services rises close to 70%. The availability of the services irrespective of location or equipment, outsourcing of assets and maintenance arrangements, and other effects are recognized as advantages of cloud services. Businesses seeing cloud services as effective or effective to some extent account for 87.1% of those having introduced such services.

[Survey Outline]

MIC has conducted the Communications Usage Trend 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). (Business surveys have been conducted each year since 1993, except for 1994. Surveys of household members started in 2001.) MIC also has conducted the household survey by prefecture since 2010.

	Households	Businesses
Survey period	September 2020	
Survey area	Nationwide	
Scope of attributes / Level of survey	Households headed by someone aged 20 or older (as of April 1, 2020) and household members aged 6 or older	Businesses with 100 or more regular employees in industries other than public affairs

Sample size [Effective mails]	40,592 households [40,096 households]	6,017 businesses [4,986 businesses]
Effective responses [%]	17,345 households (44,035 persons) [43.3%]	2,223 businesses [44.6%]
Survey items	Communication services usage, communication-device ownership, etc.	
Survey method	Survey form sent and collected by postal mail or online (email for households and electronic survey for businesses)	

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Released June 18, 2021

Attachment 1

Highlights of the Communications Usage Trend Survey in 2020

<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 2020.

・The household survey targets households headed by householders aged 20 or older (as of April 1, 2020) 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 (6,017 businesses).

Highlights of the Survey

- The smartphone ownership rate among households scores a robust increase to 86.8%. The rate among individuals also rises. In contrast, the ownership rate for other mobile phones and personal handy-phone systems continues a downtrend.

- Individuals who use smartphones for the internet continue to be more than those using personal computers. More than 90% of those aged between 20 and 39 use smartphones for the internet.

- The share for businesses having introduced telework mainly for work from home increases rapidly, more than doubling from the previous year to 47.5%. The share tops 90% in the information and communications industry. The most frequently cited purpose for introducing telework is business continuation in emergency situations (including an infectious disease outbreak), cited by nearly 70%.

- The share for businesses having introduced cloud computing services rises close to 70%. The availability of the services irrespective of location or equipment, outsourcing of assets and maintenance arrangements, and other effects are recognized as advantages of cloud services. Businesses seeing cloud services as effective or effective to some extent account for 87.1% of those having introduced such services.

<Notes>

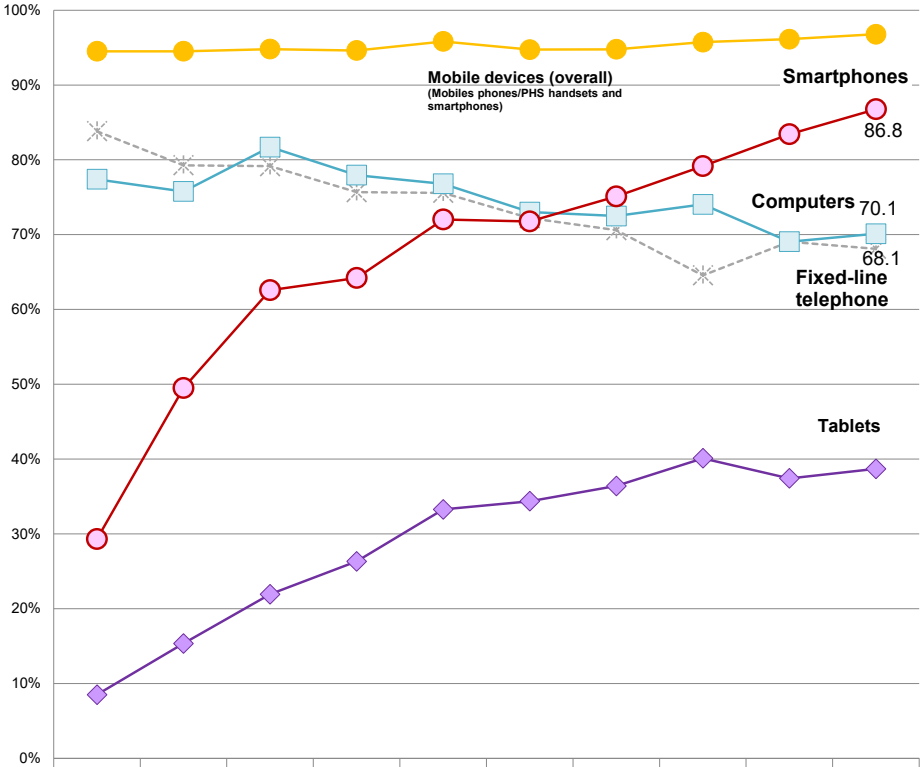
* Graphs with titles including (businesses) are based on the survey of businesses and colored orange. Those with titles including (households) are based on the survey of households, and including (individuals) are based on the survey of household members. Both (households) and (individuals) are colored 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.

1. Proliferation of Communication Devices

Ownership of common communication devices (households) (2011-2020)

The smartphone ownership rate among households robustly rises to 86.8%, surpassing the personal computer ownership rate of 70.1% and the fixed telephone ownership rate of 68.1%.



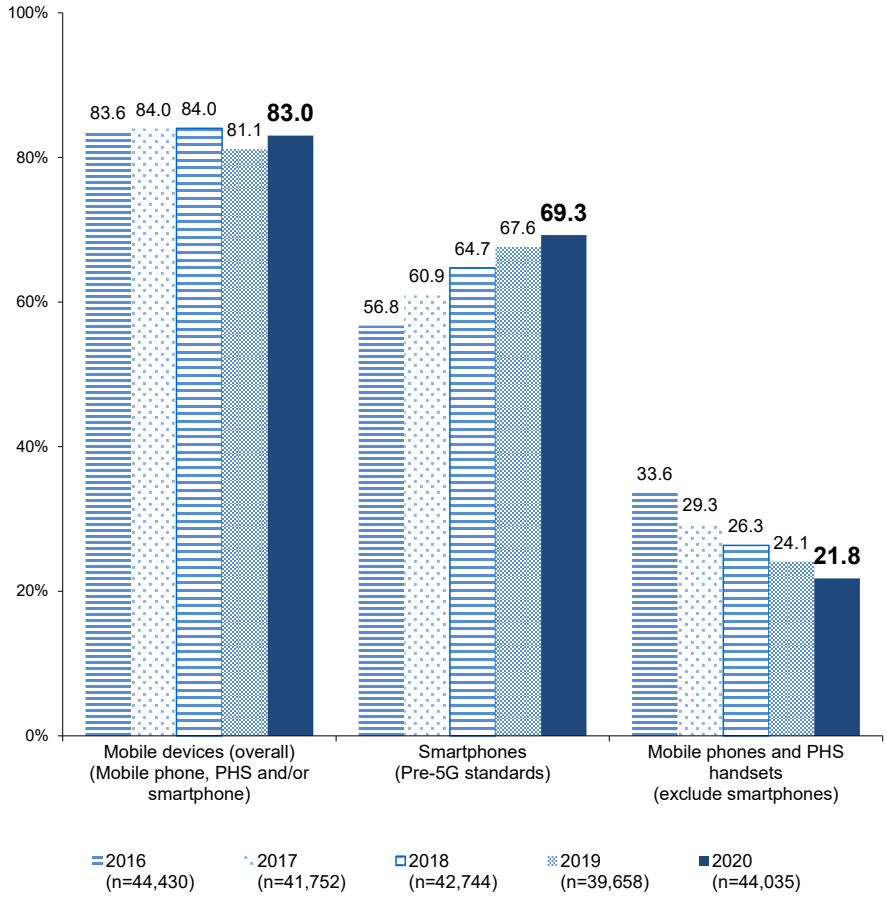
	2011 (n=16,530)	2012 (n=20,418)	2013 (n=15,599)	2014 (n=16,529)	2015 (n=14,765)	2016 (n=17,040)	2017 (n=16,117)	2018 (n=16,255)	2019 (n=15,410)	2020 (n=17,345)
Fixed-line telephone	83.8	79.3	79.1	75.7	75.6	72.2	70.6	64.5	69.0	68.1
Computers	77.4	75.8	81.7	78.0	76.8	73.0	72.5	74.0	69.1	70.1
Smartphones	29.3	49.5	62.6	64.2	72.0	71.8	75.1	79.2	83.4	86.8
Mobile devices (overall)	94.5	94.5	94.8	94.6	95.8	94.7	94.8	95.7	96.1	96.8
Tablets	8.5	15.3	21.9	26.3	33.3	34.4	36.4	40.1	37.4	38.7

(Multiple responses accepted)

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

Ownership of mobile devices (individuals) (2016-2020)

Ownership is increasing for smartphones while decreasing for mobile phones and PHS handsets (excluding smartphones).

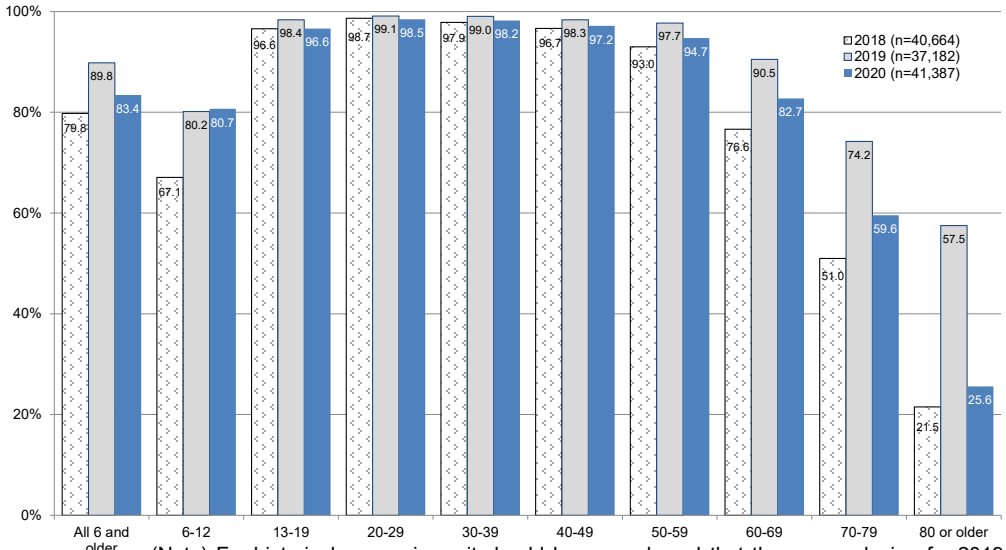


(Multiple responses accepted)

2. Internet Usage Trends

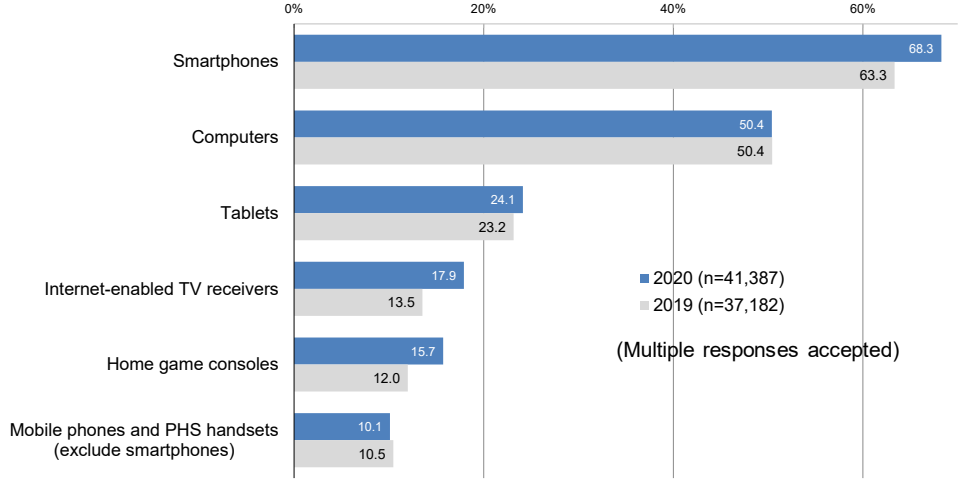
The internet user share tops 90% for individuals aged between 13 and 59. Smartphones are used more frequently than computers for internet access. More than 90% of individuals aged between 20 and 39 use smartphones.

Internet usage (individuals)

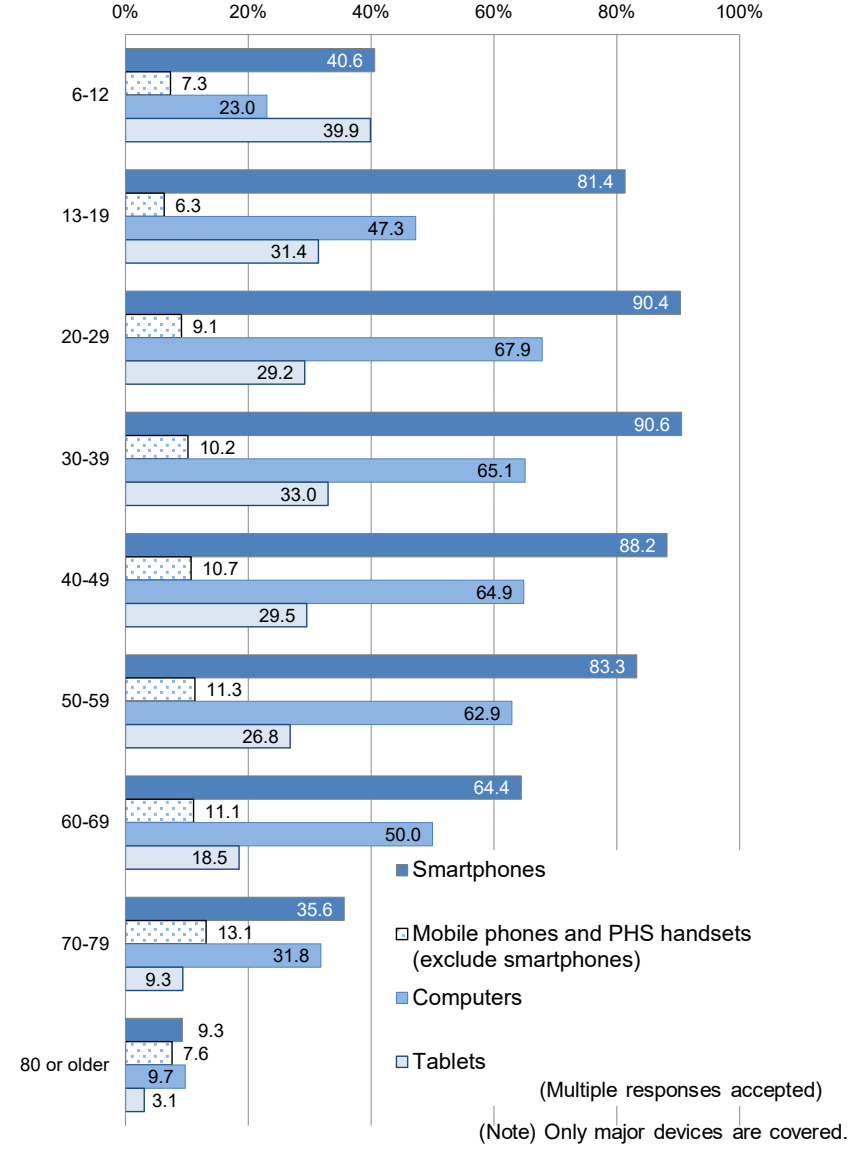


(Note) For historical comparison, it should be remembered that the survey design for 2019 was somewhat different from that for other years.

Usage of internet access devices (individuals)



Usage of internet access devices by age group (individuals)



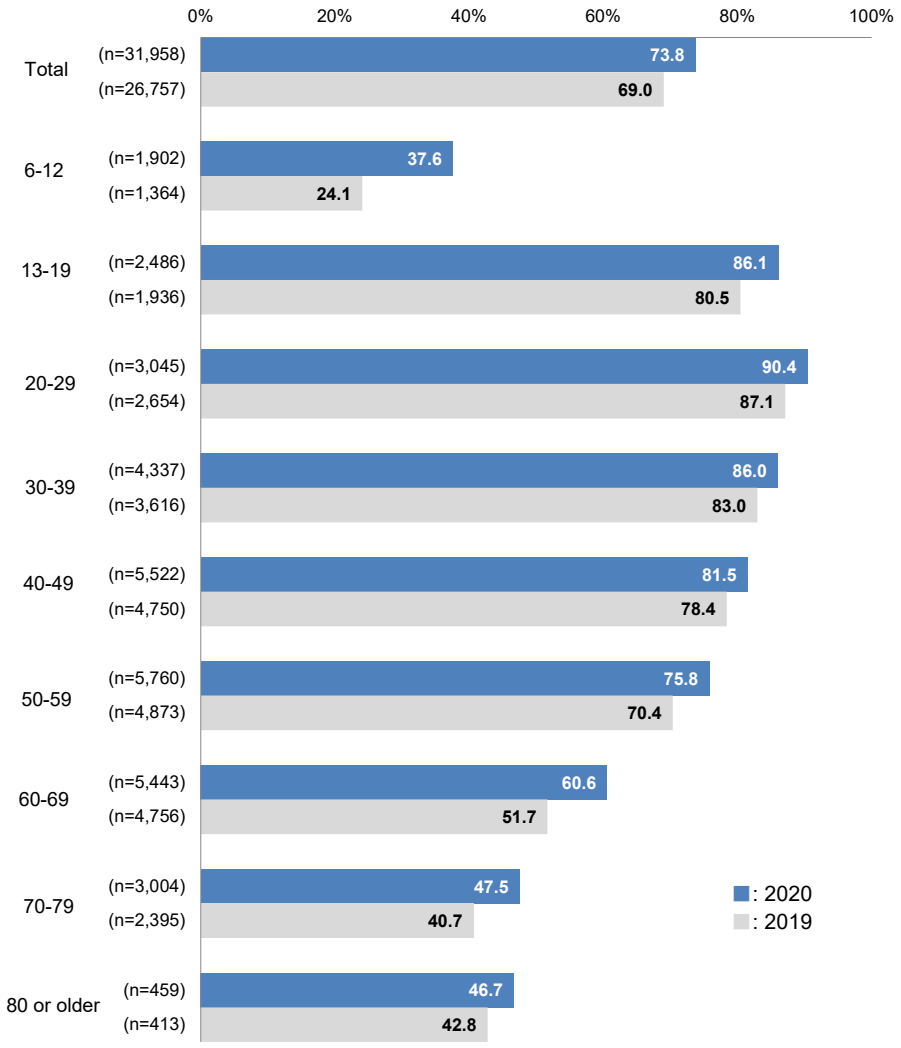
(Note) Only major devices are covered.

3. Social Networking Service Usage Trends (individuals)

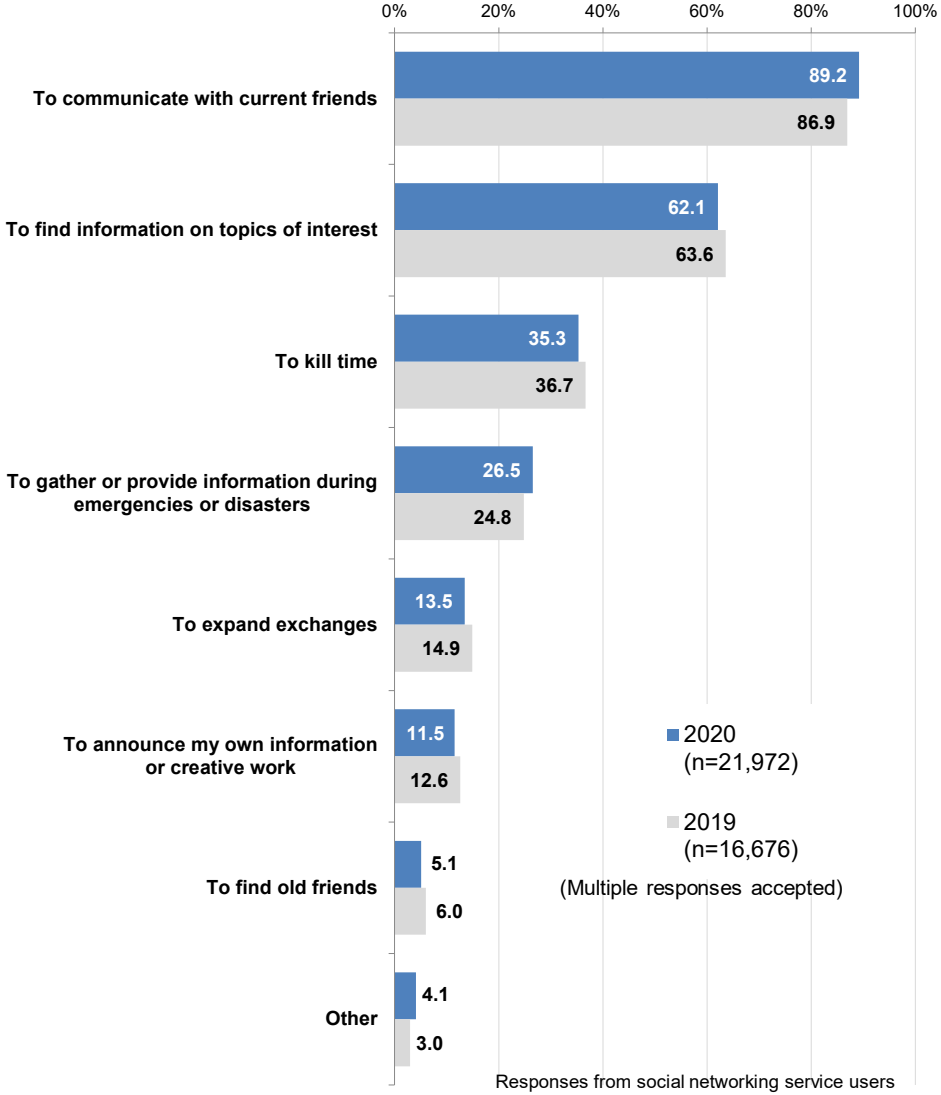
The share for individuals using social networking services* rises in all age groups, scoring particularly sharp growth among those aged 19 or younger, and 60 or older. The most frequently cited purpose for using SNS is “to communicate with current friends.”

*SNS here include Facebook, Twitter, LINE, mixi, Instagram and Skype.

Social networking service usage (individuals)



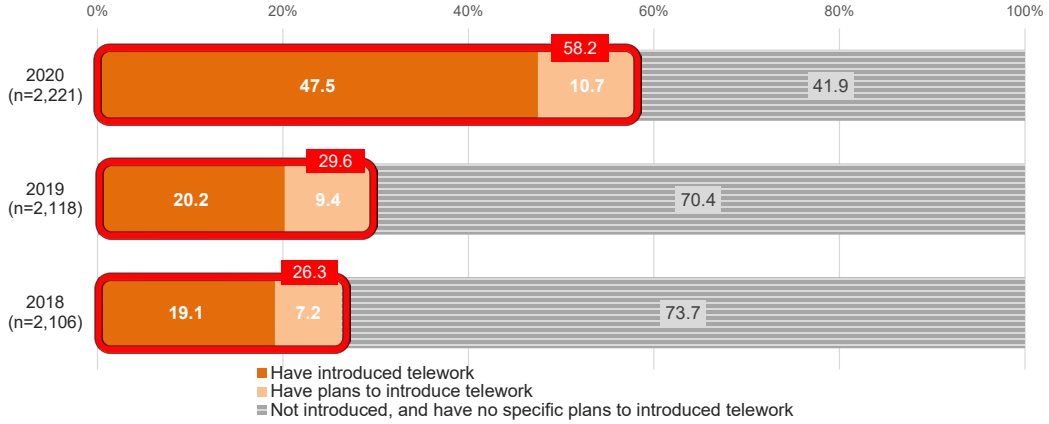
Purposes of social networking service usage (individuals)



4. Introduction of Telework (businesses)

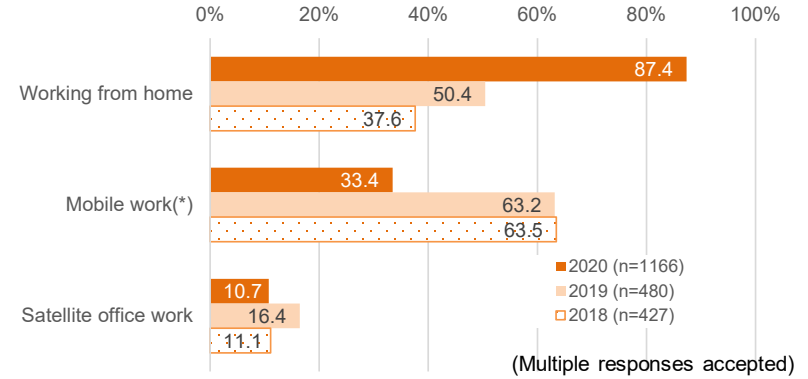
Introduction of telework

The telework introduction rate among businesses more than doubles close to 60%, including those planning the introduction.



Type of telework introduced

Nearly 90% of businesses have introduced “working from home.”



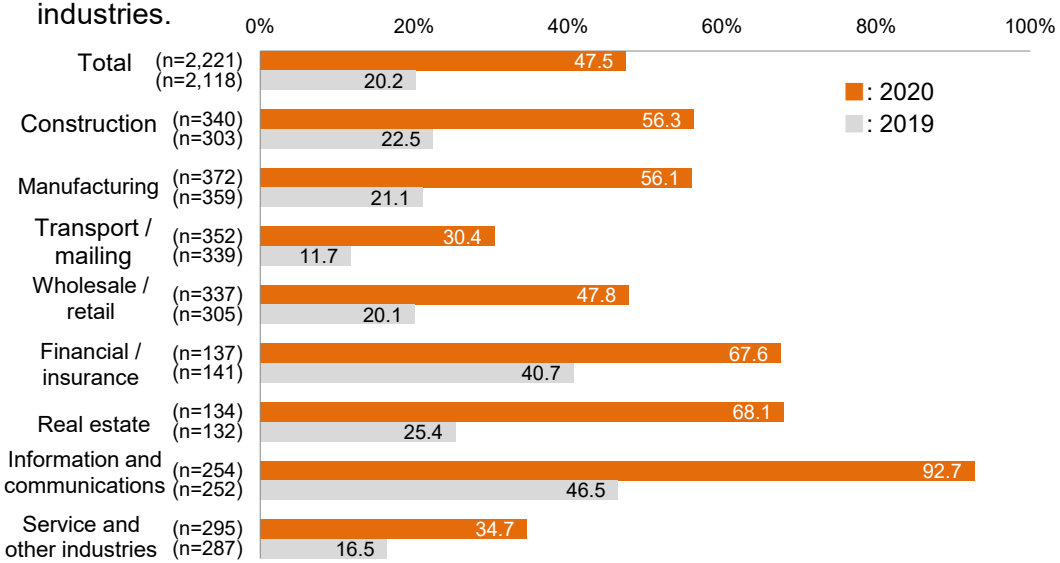
(Multiple responses accepted)

Note: as a percentage of businesses which have introduced telework

*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.

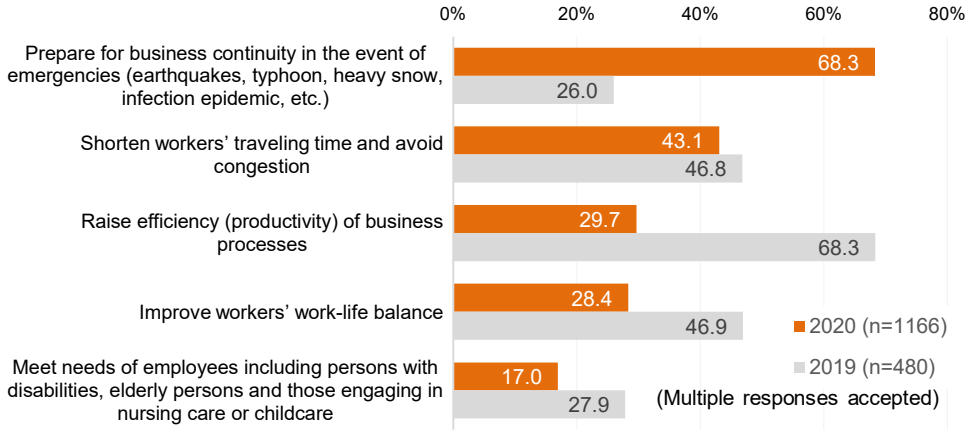
Introduction of telework by industry

The telework introduction rate has sharply increased in all industries. Particularly, the rate tops 90% in the “information and communications” industry and stands close to 70% in the “real estate” and “financial/insurance” industries.



Purposes of introducing telework

The most frequently cited purpose for introducing telework is to “prepare for business continuity in the event of emergencies (including infection epidemic)”, cited by nearly 70% and followed by to “shorten workers’ traveling time and avoid congestion.” Meanwhile, the share falls for to “raise efficiency (productivity) of business processes.”



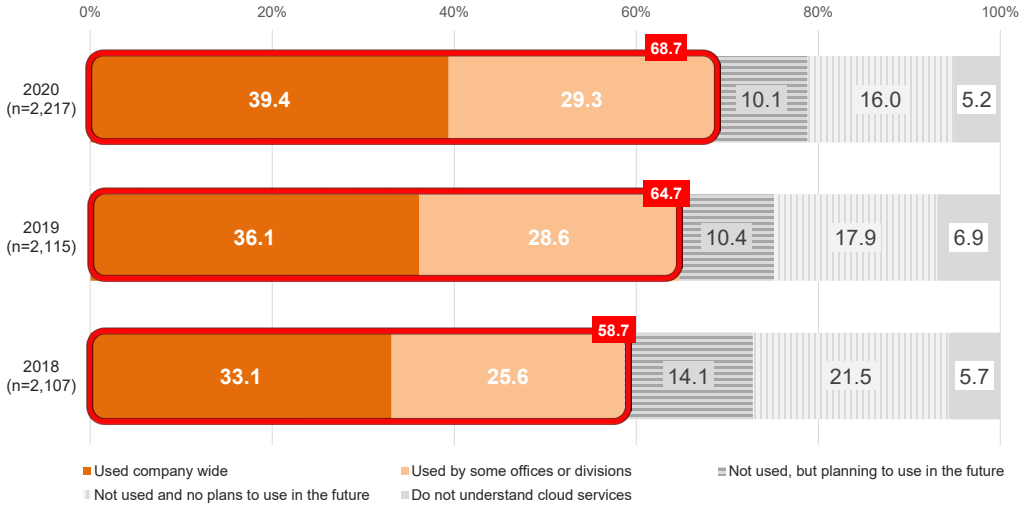
(Multiple responses accepted)

Note: as a percentage of businesses which have introduced telework

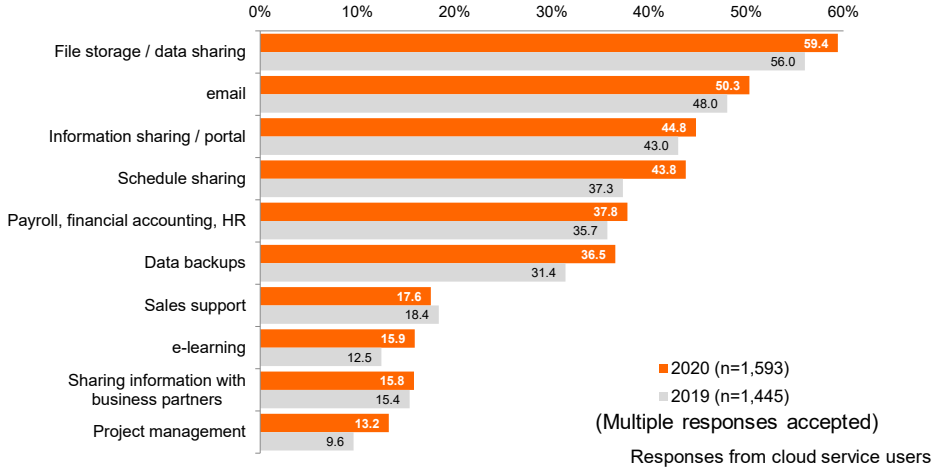
5. Cloud Service Usage (businesses)

The share for businesses using cloud computing service continues an uptrend, rising close to 70%.
Purposes for using cloud services include “file storage/data sharing” and “email.” The reasons for using cloud services include “the same services are available irrespective of location or equipment” and “there is no need for owning proprietary assets or maintenance arrangements.”
The share for businesses viewing cloud services as “very beneficial” or “somewhat beneficial” among cloud service-using businesses exceeds 80%.

Cloud service usage



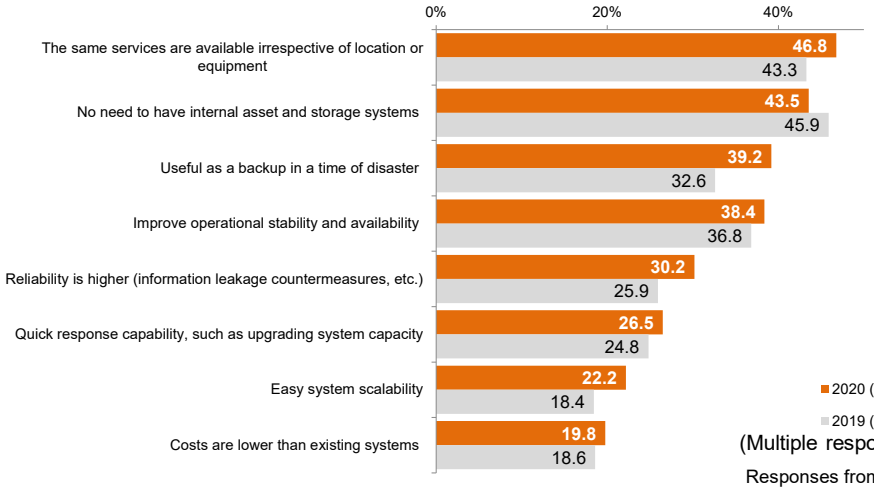
Purposes for using cloud services



(Multiple responses accepted)

Responses from cloud service users

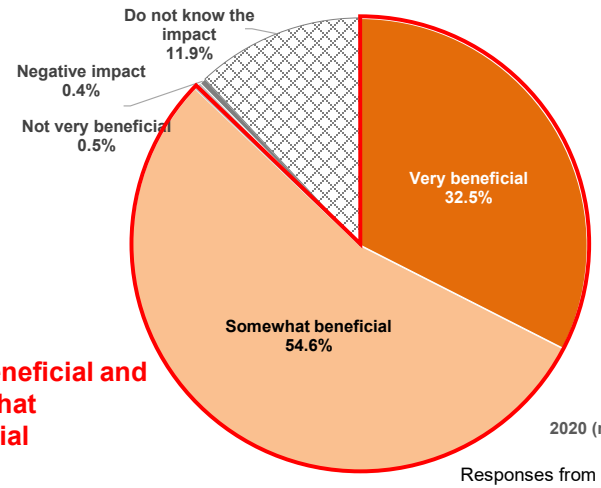
Reasons for using cloud services



(Multiple responses accepted)

Responses from cloud service users

Impact of cloud computing services



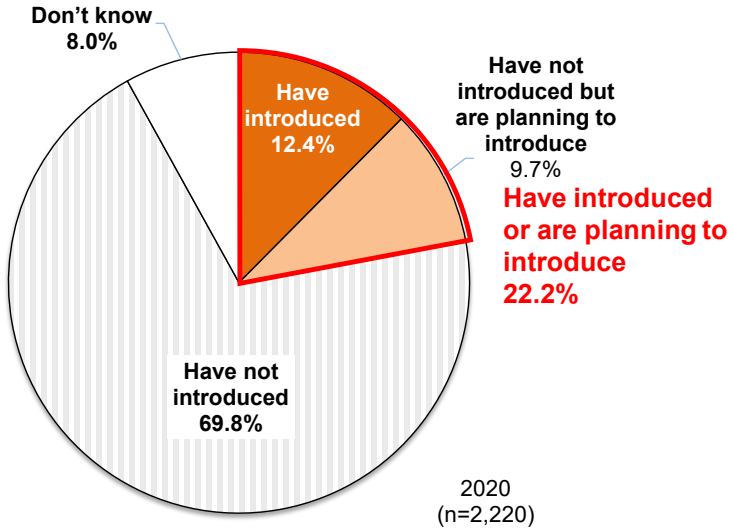
Very beneficial and somewhat beneficial 87.1%

Responses from cloud service users

6. Collection/utilization of digital data with IoT/AI systems (businesses)

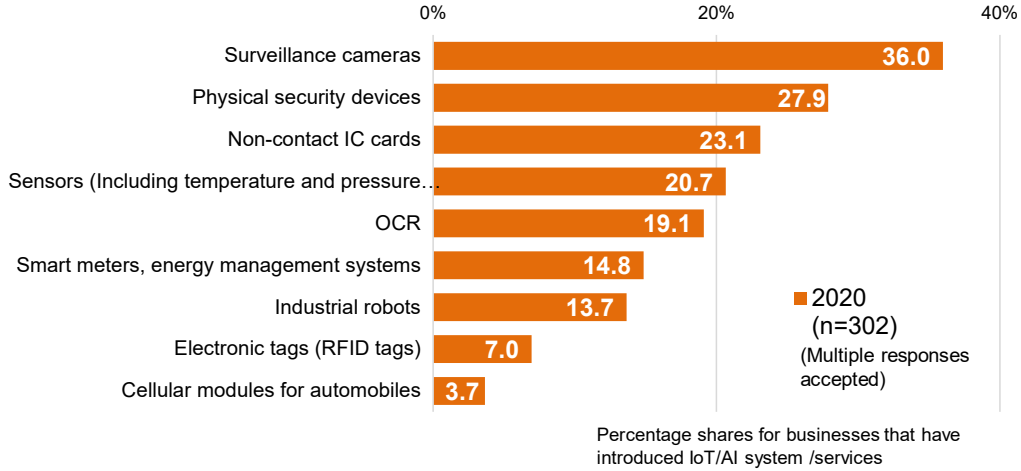
Introduction of IoT/AI systems/services

More than 20% of businesses have introduced or are planning to introduce IoT and AI systems or services to collect and analyze digital data.



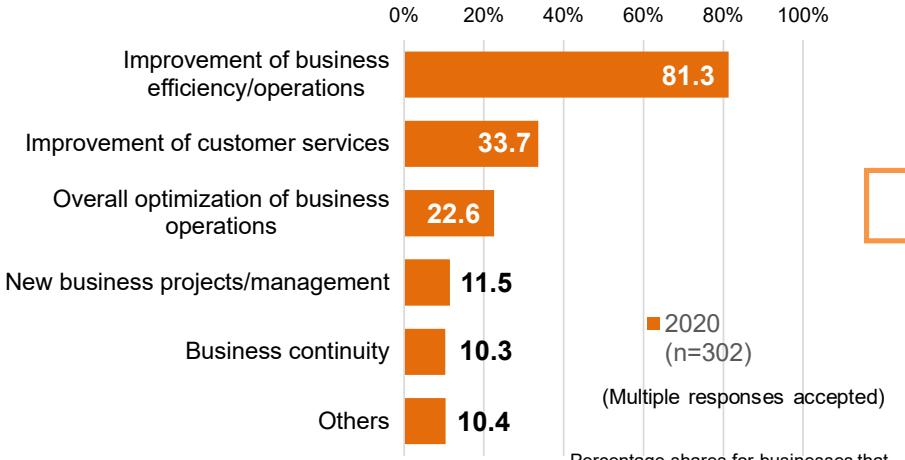
Devices for introduced systems or services

The most frequently cited responses among components of IoT and AI systems or services that have been introduced are "surveillance cameras" (36.0%), followed by "Physical security devices" (27.9%).



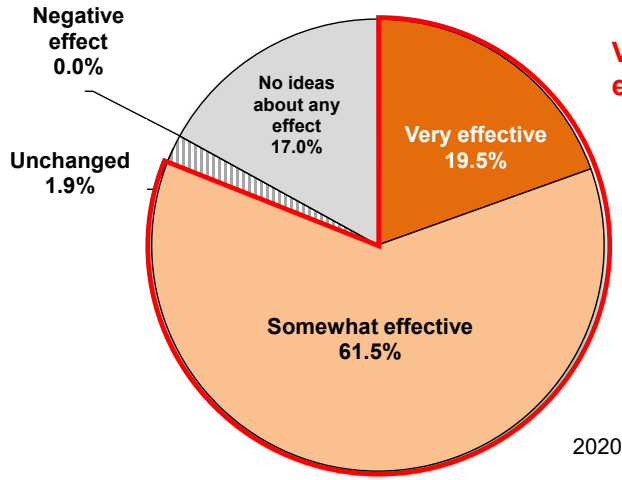
Percentage shares for businesses that have introduced IoT/AI system /services

Purposes of IoT/AI digital data collection and analysis



Percentage shares for businesses that have introduced IoT/AI system /services

Effects of IoT /AI system/service introduction

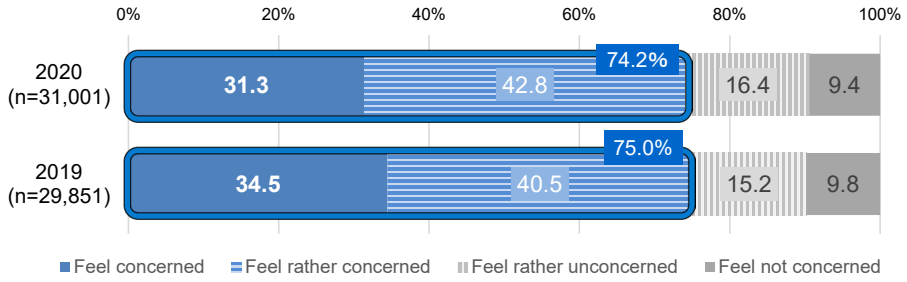


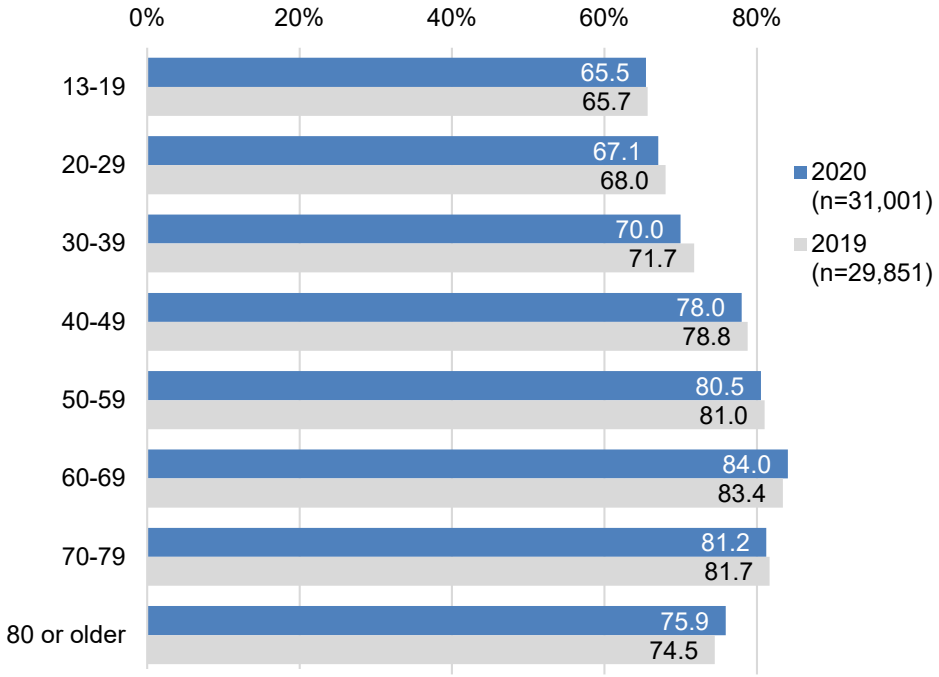
Percentage shares for businesses that have introduced IoT/AI system /services

7. Concerns about Using the Internet (individuals)

Concerns about using the internet

75% of internet users feel insecure during internet use.
The share for internet users feeling insecure during internet use is high among those aged 40 or more.

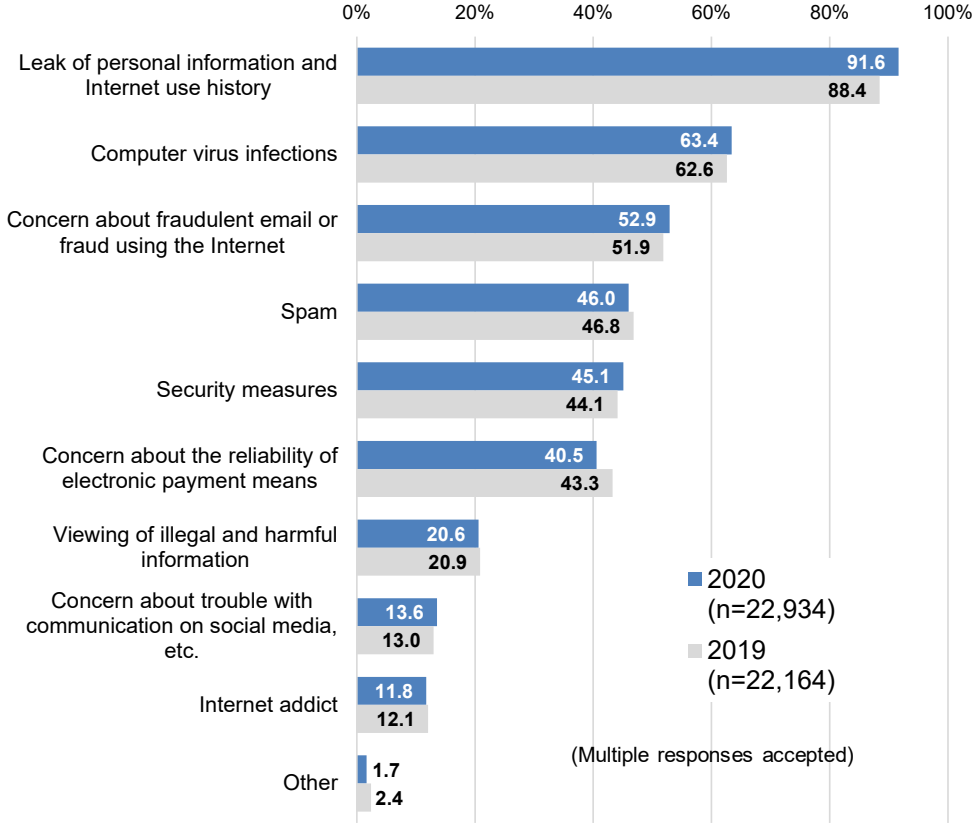




Note: Percentage of internet users who “feel concerned” and “feel rather concerned”

Types of concerns about using the internet

The percentage is as high as 91.6% for “leak of personal information and internet use history” among types of concerns about using the internet. The percentage for “computer virus infections” is also high at 63.4%.



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

Released June 18, 2021

Attachment 2

Summary Findings of the 2020 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, 2020) 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 (6,017 businesses)

<Note>

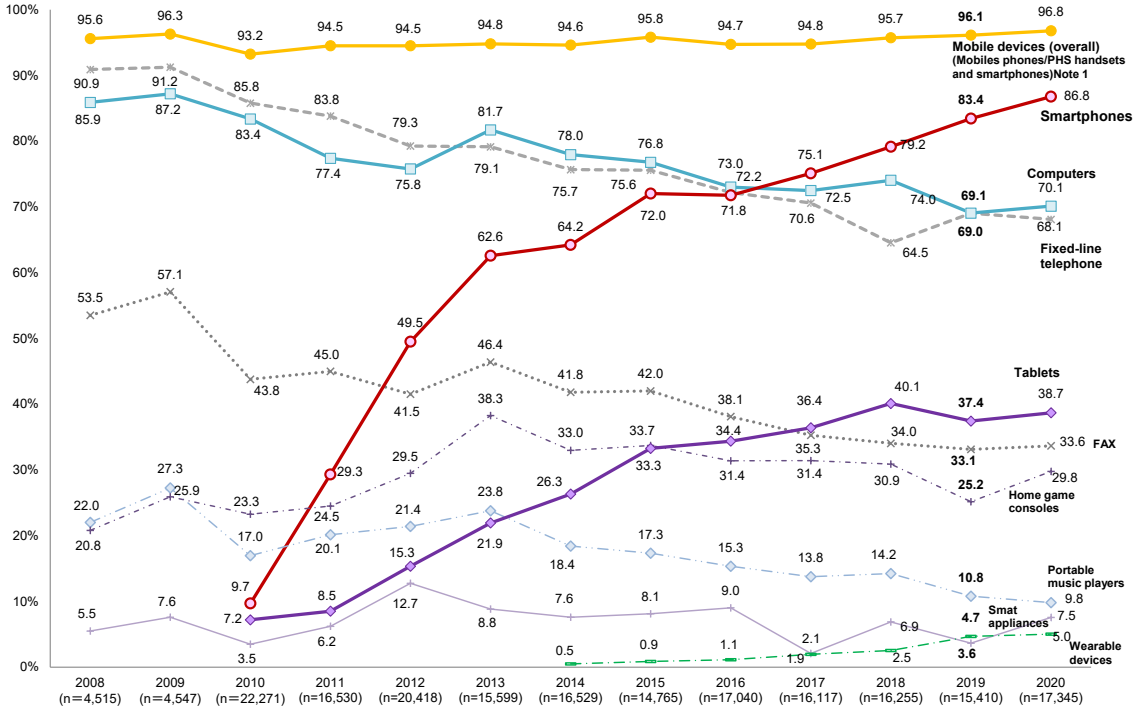
・Data in this document exclude non-respondents in the survey (unless otherwise specified).

1. Proliferation of the Internet and Other Networks

(1) Ownership of communication devices (households)

Ownership rises to 86.8% for smartphones among communication devices.

Figure 1-1: Transitions in ownership of communication devices



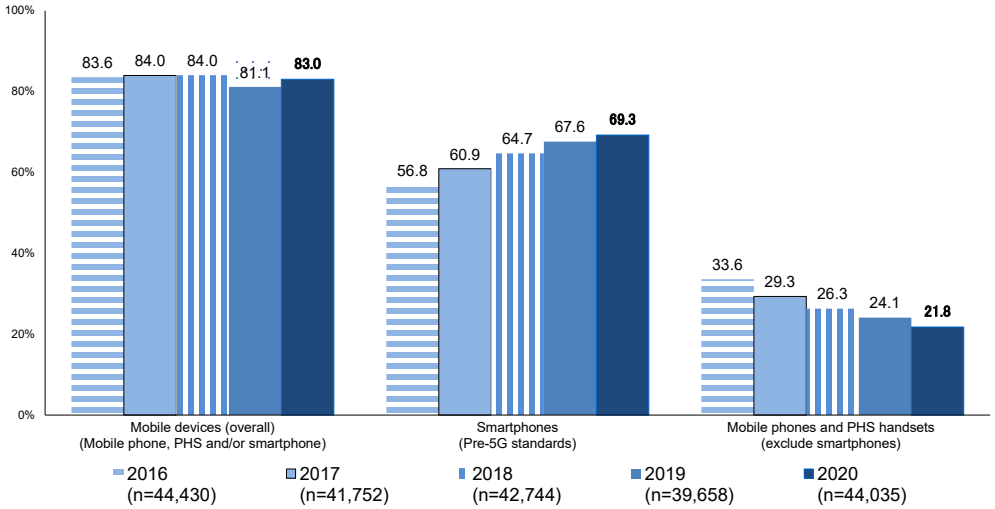
Notes: 1. "Mobile devices (overall)" include mobile phones and PHS handsets. This category also included personal digital assistants (PDAs) from 2009 to 2012 and smartphones from 2010.
2. For comparison purposes between years, these calculations do include non-responses.

(2) Ownership of mobile devices (individuals)

Regarding the ownership of mobile devices by individuals, the ownership rate for "smartphones" is 69.3%, 47.5 points higher than the ownership rate for "other mobile phones/PHS handsets" (21.8%).

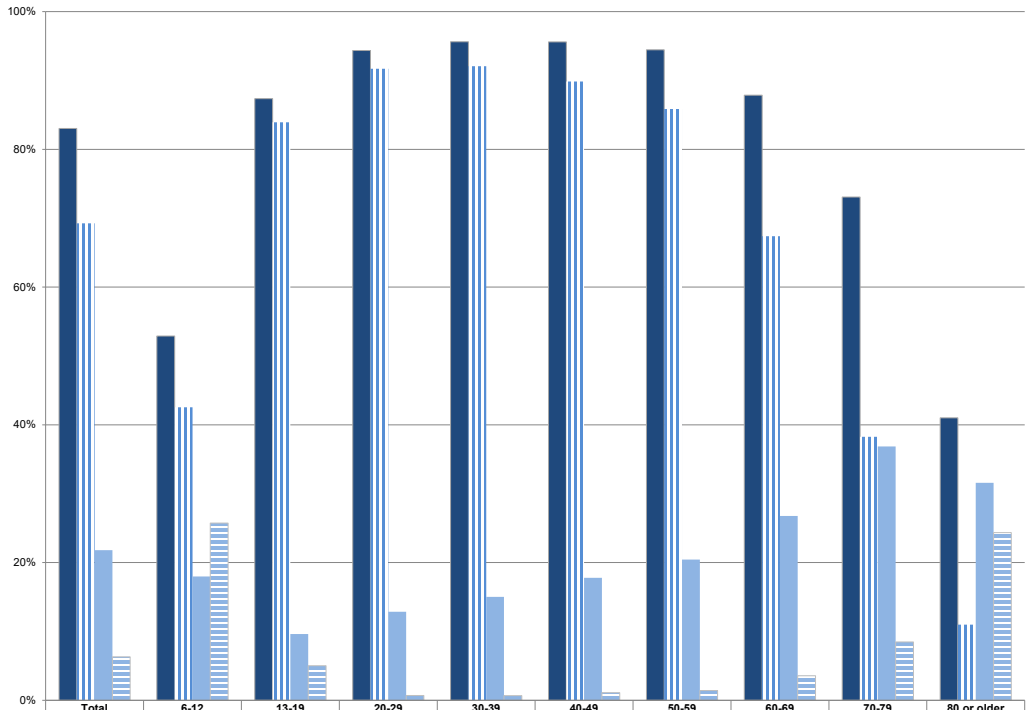
By age group, the ownership rate for "smartphones" is higher than the ownership rate for "other mobile phones/PHS handsets" in the age groups other than "80 or older."

Figure 1-2: Transitions in ownership of mobile devices



(Note) Including non-respondents.

Figure 1-3: Ownership of mobile devices by age group (2020)



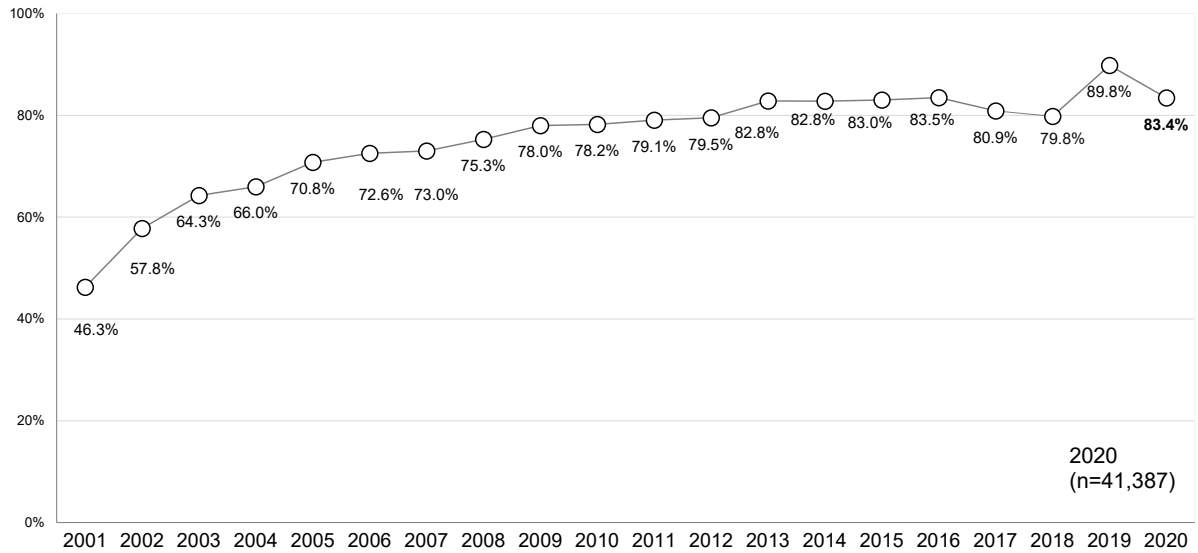
	Total (n=44,035)	6-12 (n=2,641)	13-19 (n=2,772)	20-29 (n=3,377)	30-39 (n=4,740)	40-49 (n=6,114)	50-59 (n=6,514)	60-69 (n=7,603)	70-79 (n=6,837)	80 or older (n=3,437)
Mobile devices (overall)(Mobile phone, PHS and/or smartphone)	83.0	52.9	87.4	94.4	95.6	95.6	94.4	87.9	73.1	41.0
Smartphones (Pre-5G standards)	69.3	42.5	83.9	91.7	92.1	89.9	85.9	67.4	38.3	11.0
Mobile phones and PHS handsets (exclude smartphones)	21.8	18.0	9.6	12.9	15.0	17.8	20.4	26.8	36.9	31.6
Not owning	6.3	25.7	5.0	0.7	0.7	1.1	1.4	3.6	8.5	24.4

(Note) Including non-respondents.

(3) Internet usage (individuals)

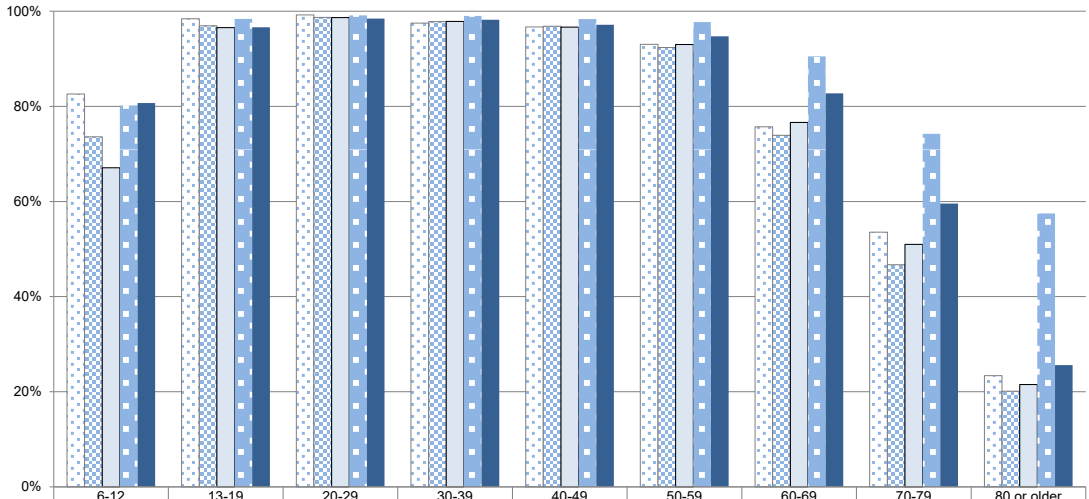
The internet user share is 83.4%. The share tops 90% for individuals aged between 13 and 59.

Figure 1-4: 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 1-5: Transitions in internet usage by age group



	6-12	13-19	20-29	30-39	40-49	50-59	60-69	70-79	80 or older
2016 (n=40,297)	82.6	98.4	99.2	97.5	96.7	93.0	75.7	53.6	23.4
2017 (n=38,630)	73.6	96.9	98.7	97.8	96.8	92.4	73.9	46.7	20.1
2018 (n=40,664)	67.1	96.6	98.7	97.9	96.7	93.0	76.6	51.0	21.5
2019 (n=37,182)	80.2	98.4	99.1	99.0	98.3	97.7	90.5	74.2	57.5
2020 (n=41,387)	80.7	96.6	98.5	98.2	97.2	94.7	82.7	59.6	25.6

(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: Internet usage by age and gender (2020)

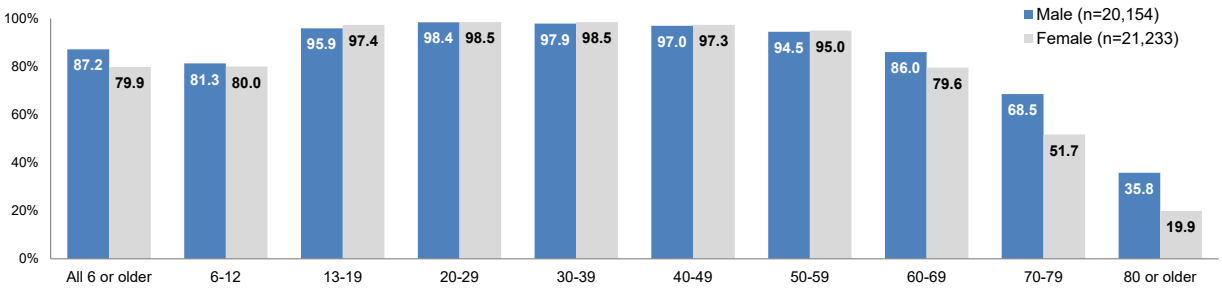
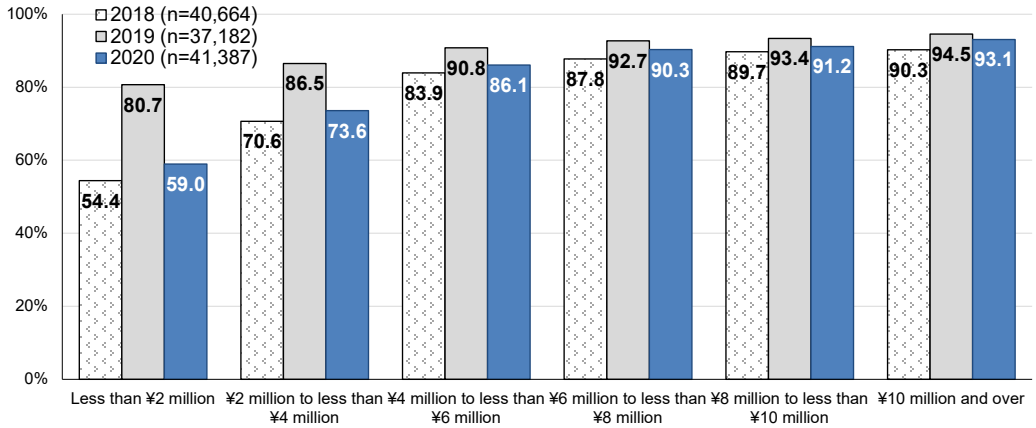


Figure 1-7: Internet usage by annual household income



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

(4) Internet usage by device (individuals)

The internet usage by device indicates that the percentage of those using smartphones for internet access is 17.9 points higher than that of those using computer. By age group, the smartphone usage rate is higher than 90% in the age groups between 20 and 39 years old.

Figure 1-8: Internet usage by device

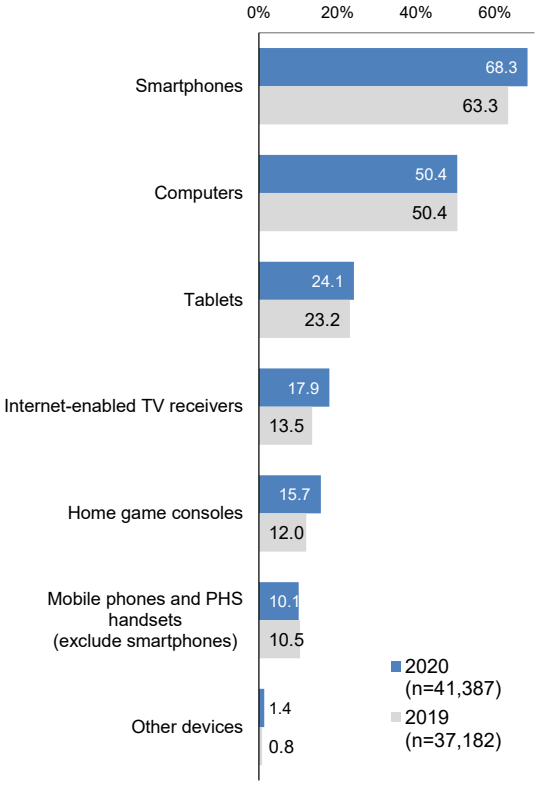
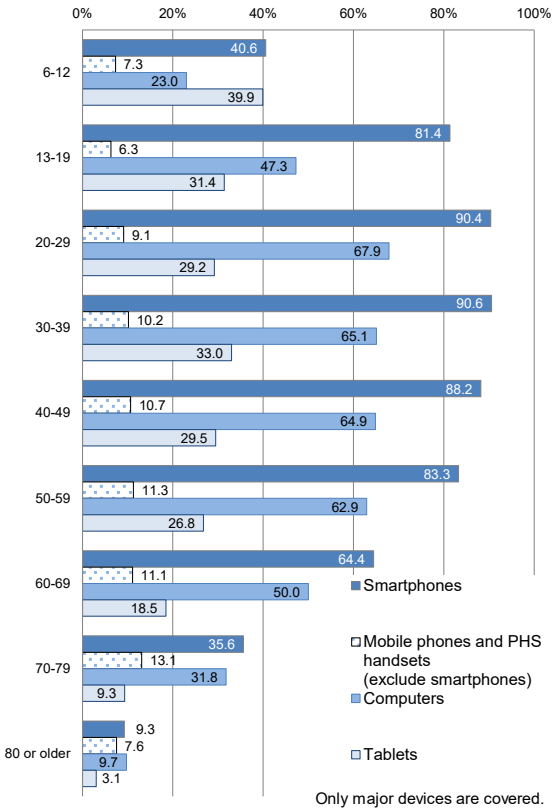


Figure 1-9: Use of internet devices by age group



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

The internet usage by prefecture indicates that Kanagawa posts the highest internet usage rate, followed by Tokyo and Saitama in that order (see the colored parts in Figure 1-10).

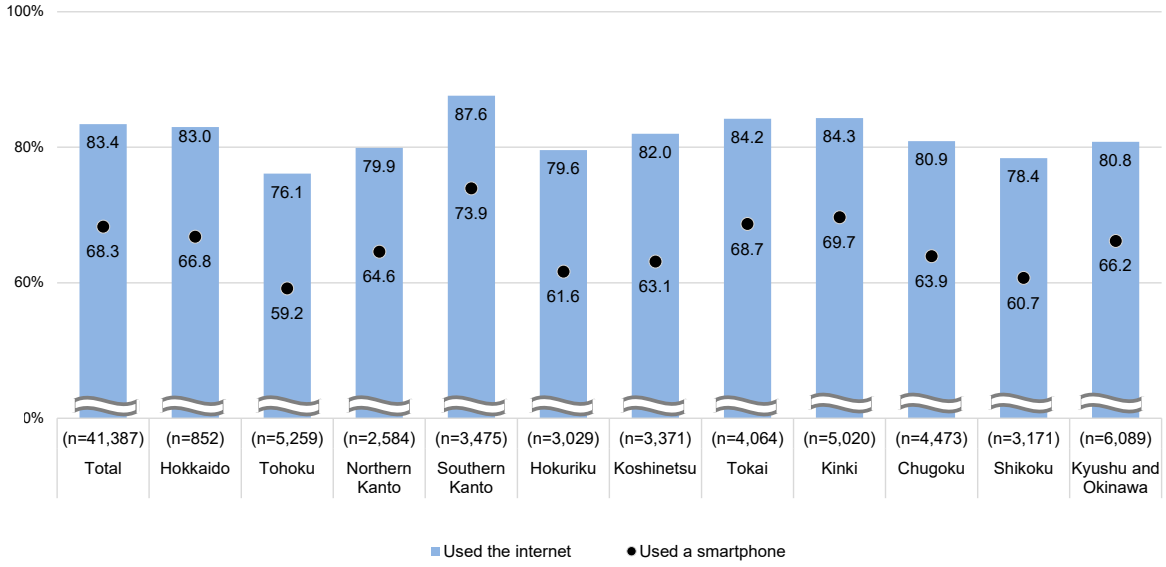
By region, the internet usage rate in southern Kanto, Kinki and Tokai is higher than the national average rate.

Figure 1-10: Internet usage by prefecture and device (2020)

(%)

Prefecture (n)		Percentage of internet users				
		Total	Computers	Mobile phones (incl. PHS)	Smartphones	Tablets
Hokkaido	(852)	83.1	47.8	10.7	66.8	24.3
Aomori	(793)	75.3	38.4	9.3	57.9	18.7
Iwate	(908)	74.1	36.3	10.4	56.5	19.5
Miyagi	(900)	82.5	50.0	9.3	66.2	19.3
Akita	(748)	70.7	36.6	8.9	55.2	15.2
Yamagata	(1,074)	75.1	41.2	9.8	58.0	18.3
Fukushima	(836)	73.3	36.5	9.2	55.8	16.9
Ibaraki	(828)	79.1	45.5	12.6	62.9	25.5
Tochigi	(739)	82.2	43.7	10.5	66.1	25.7
Gunma	(1,017)	79.1	43.9	8.3	65.6	20.7
Saitama	(949)	86.8	51.4	9.8	71.8	23.2
Chiba	(846)	83.7	50.2	9.1	68.3	24.3
Tokyo	(887)	88.3	64.8	11.7	75.2	29.2
Kanagawa	(793)	89.7	60.3	10.6	77.6	33.3
Niigata	(958)	78.2	39.1	12.1	61.8	19.8
Toyama	(1,303)	81.7	51.8	9.0	62.8	22.9
Ishikawa	(1,104)	82.9	50.8	9.2	63.9	23.5
Fukui	(964)	81.3	45.5	8.0	62.6	21.8
Yamanashi	(1,129)	82.8	50.9	10.5	66.7	28.6
Nagano	(942)	79.8	45.0	11.6	59.5	20.1
Gifu	(966)	81.3	47.0	10.5	67.1	21.9
Shizuoka	(1,181)	82.9	47.5	8.9	63.7	22.1
Aichi	(941)	86.0	52.4	10.3	71.8	28.5
Mie	(976)	81.7	47.1	9.9	67.4	21.5
Shiga	(998)	83.6	44.5	9.8	66.5	19.2
Kyoto	(904)	86.2	59.7	8.5	73.5	28.5
Osaka	(730)	86.2	53.2	11.0	71.5	21.0
Hyogo	(831)	82.1	50.4	8.0	67.9	20.8
Nara	(785)	82.4	43.2	9.2	65.4	20.7
Wakayama	(772)	76.8	43.5	9.6	63.2	18.4
Tottori	(822)	79.4	46.0	9.2	63.0	20.6
Shimane	(915)	75.3	40.5	8.4	59.1	21.8
Okayama	(878)	81.3	46.3	10.2	62.5	21.2
Hiroshima	(936)	82.0	43.7	10.2	67.6	22.2
Yamaguchi	(922)	81.3	45.9	11.4	61.0	17.7
Tokushima	(825)	77.4	47.3	11.1	58.2	20.1
Kagawa	(987)	81.3	47.3	10.9	64.5	24.7
Ehime	(665)	77.7	42.8	10.4	60.6	22.2
Kochi	(694)	76.7	41.9	13.0	58.1	17.8
Fukuoka	(763)	84.5	49.4	7.1	73.5	23.7
Saga	(865)	80.9	42.3	11.5	61.1	22.8
Nagasaki	(823)	77.9	35.2	10.3	58.2	21.3
Kumamoto	(770)	78.4	40.5	10.1	61.5	25.2
Oita	(735)	77.7	42.0	13.2	63.2	23.3
Miyazaki	(783)	76.7	38.8	10.4	60.6	19.1
Kagoshima	(799)	78.3	43.6	6.9	64.0	20.6
Okinawa	(551)	81.8	43.7	10.3	65.2	23.8
Total	(41,387)	83.4	50.4	10.1	68.3	24.1

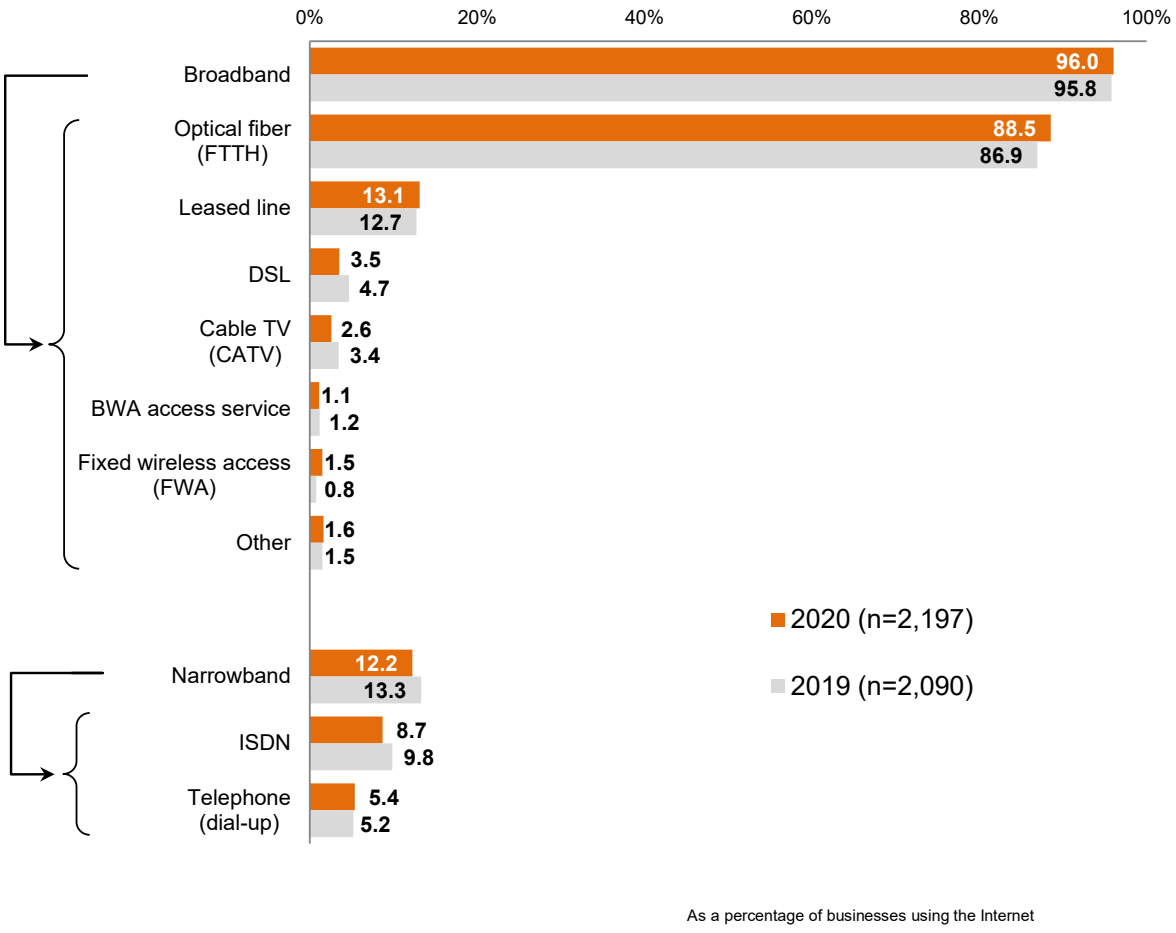
Figure 1-11: Internet and smartphone usage by region (2020)



(6) Types of internet connections (businesses)

Of the surveyed businesses, 96.0% use a broadband connection to access the internet from their premises. Of businesses using a broadband connection, 88.5% use an optical fiber connection.

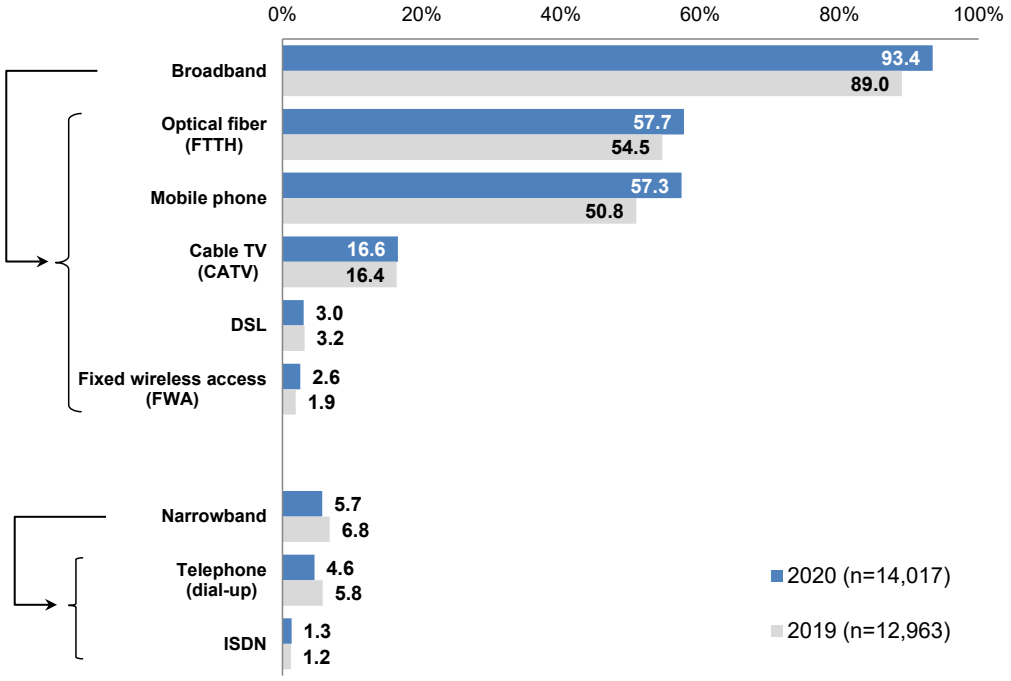
Figure 1-12: Internet connection types (multiple responses accepted)



(7) Types of internet connections (households)

Of households using a broadband connection to access the internet from computers, tablets and other devices at home, 93.4% use a broadband connection.

Figure 1-13: Types of internet connections for computers at home and other devices (multiple responses accepted)

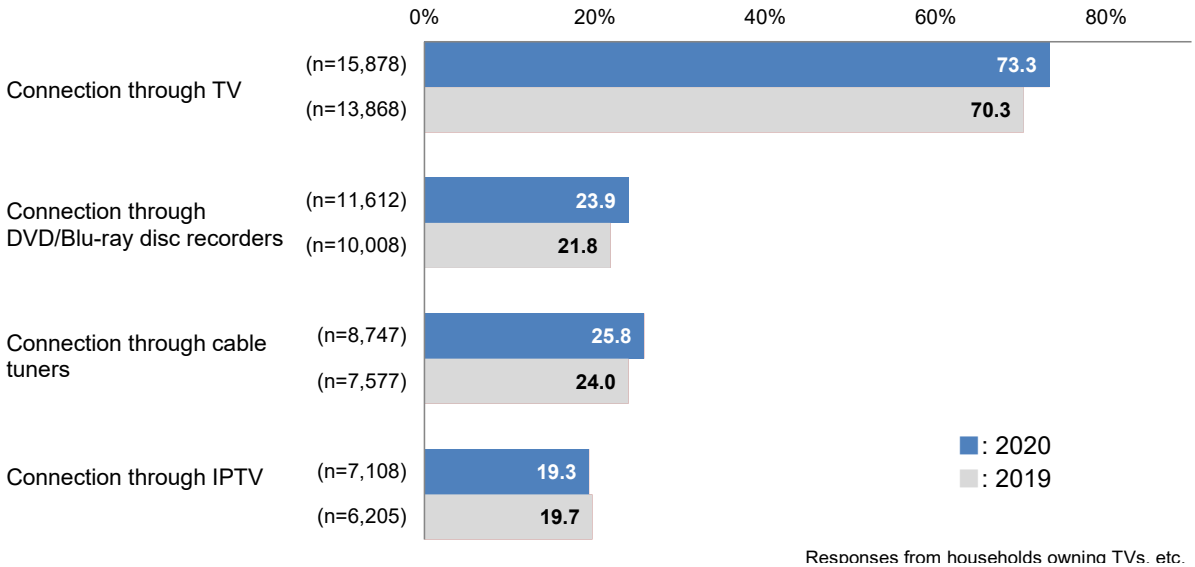


As a percentage of households accessing the Internet from computers at home and other devices.

(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 73.3%, followed by 25.8% for those using a connection through cable TV.

Figure 1-14 Internet connection through TV, etc. (multiple responses accepted)



Responses from households owning TVs, etc.

2. Current ICT Usage by Individuals

(1) Purposes of using the internet (individuals)

The most common usage of the internet is “sending and receiving email,” at 77.7%. This is followed by “information search” (76.4%) and “using social networking services” (73.8%).

By age group, “sending and receiving email” and “information search” are common usages across all age groups, while there is wide difference across age groups with respect to such purposes as “using online gaming” and “using video posting/sharing sites.”

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

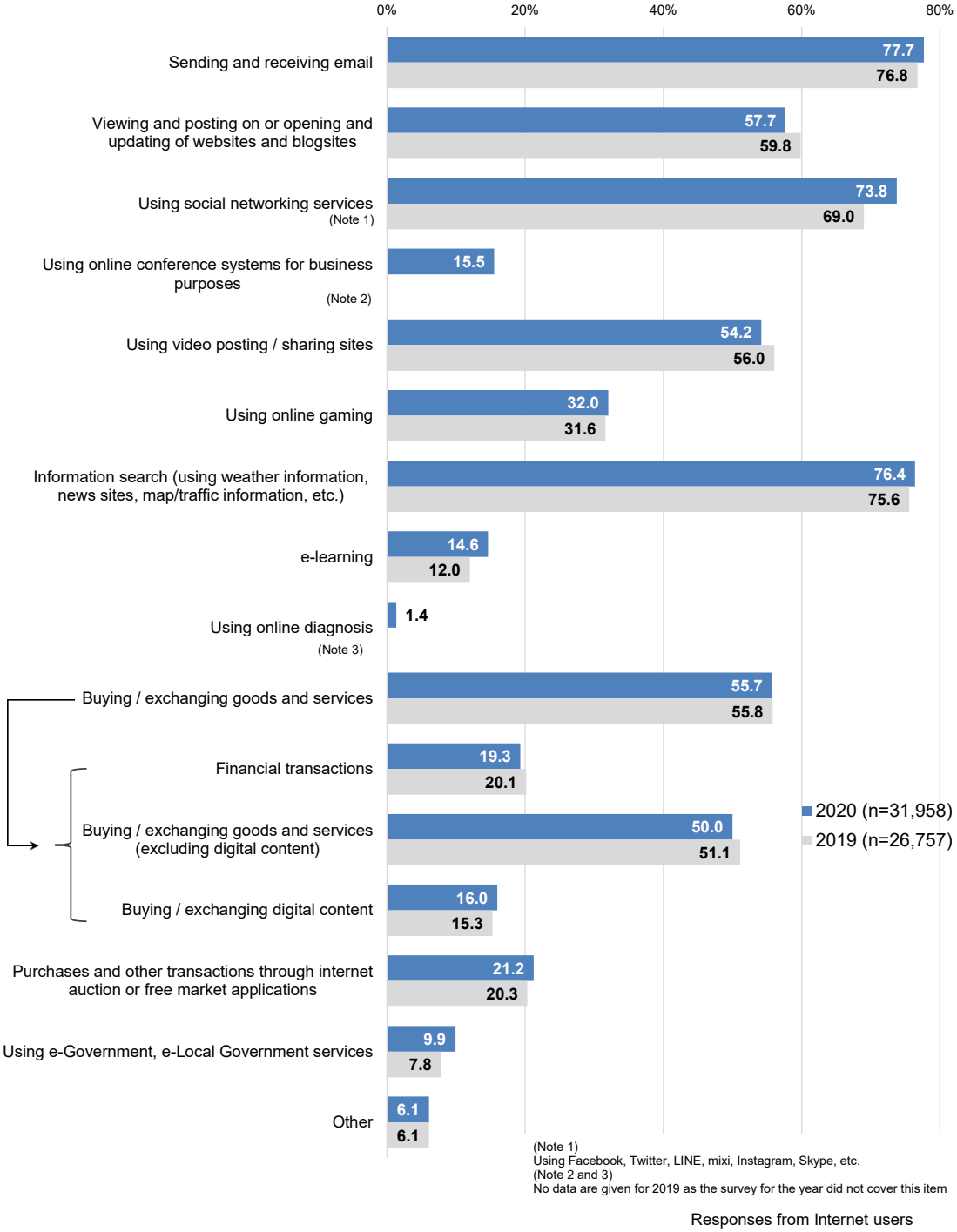
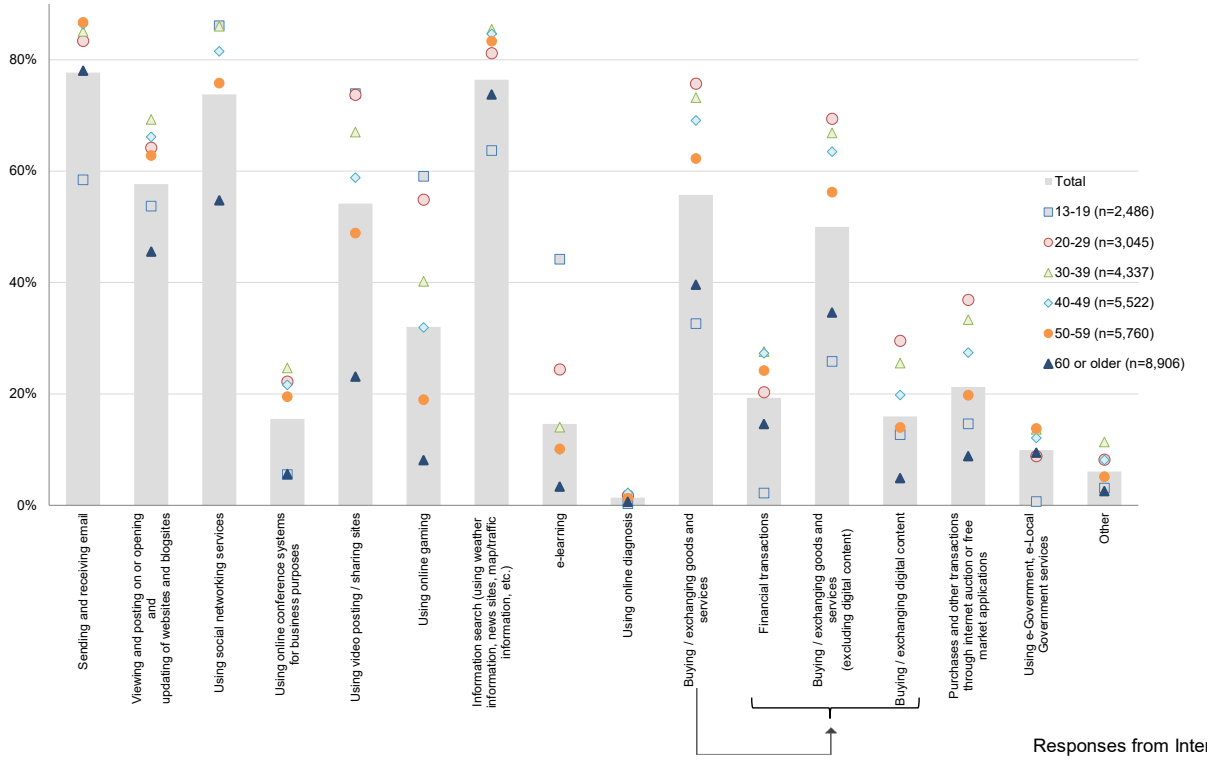


Figure 2-2: Purposes of using the internet by age group (multiple responses accepted) (2020)



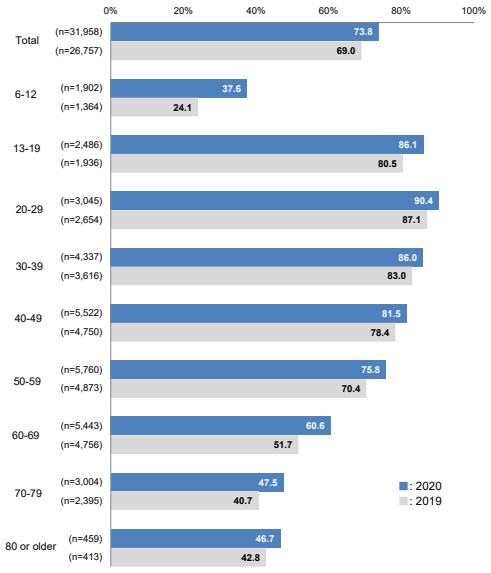
Responses from Internet users

(2) Social networking service usage (individuals)

Of internet users, 73.8% use social networking services, up 4.8 points from the previous year. The share scores particularly sharp growth among individuals aged 19 or younger, and 60 or older.

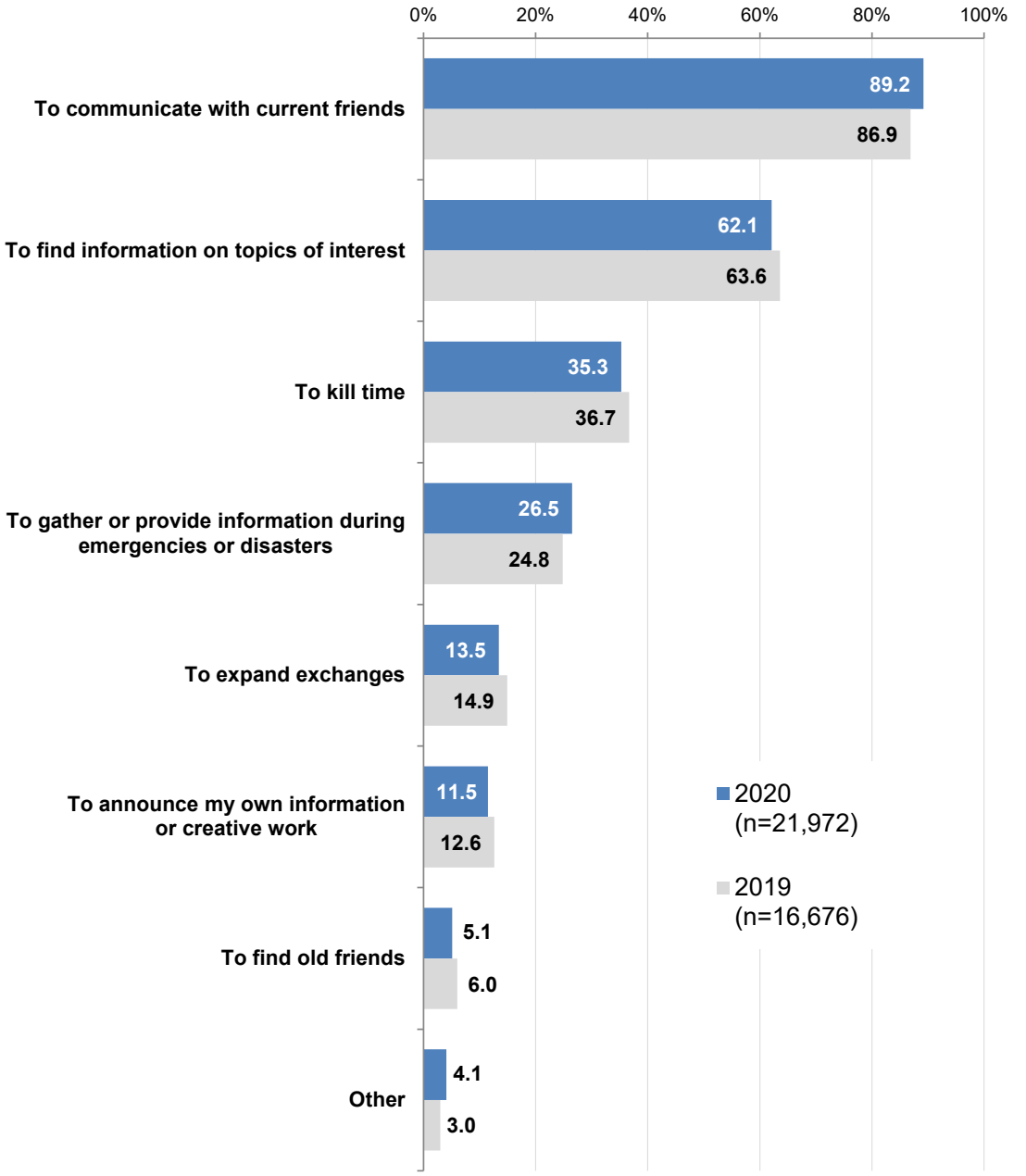
Among purposes of SNS usage, “to communicate with current friends” (89.2%) is the most frequently cited, followed by “to find information on topics of interest” (62.1%).

Figure 2-3: Social networking service usage



As a percentage of Internet users

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



3. Introduction and Implementation of Telework

(1) Introduction of telework (businesses)

The share for businesses having introduced telework comes to 47.5%, more than doubling from the previous survey (20.2%)

Among types of telework that have been introduced, “mobile work” is the most frequently cited (87.4%).

The telework introduction rate increases in all industries. Particularly in the “information and communications” industry, most businesses (92.7%) have introduced telework. The rate is also as high as 68.1% in the “real estate” industry and 67.6% in the “financial and insurance” industry.

By capitalization, the rate is the highest at 87.1% for businesses capitalized between 1 billion yen and less than 5 billion yen. The most frequently cited share of employees using telework is “less than 5%,” cited by 37.6%.

The most frequently cited purpose for introducing telework is to “prepare for business continuity in the event of emergencies” (including infection epidemic), cited by 68.3%, a steep rise from 26.0% in the previous survey. It is followed by to “shorten workers’ traveling time and avoid congestion” (43.1%). Meanwhile, the share falls to 29.7% for to “raise efficiency (productivity) of business processes.”

Concerning the intended effects of telework introduction, 74.6% 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, 80.0%, as the reason for not introducing telework.

Figure 3-1: Telework introduction

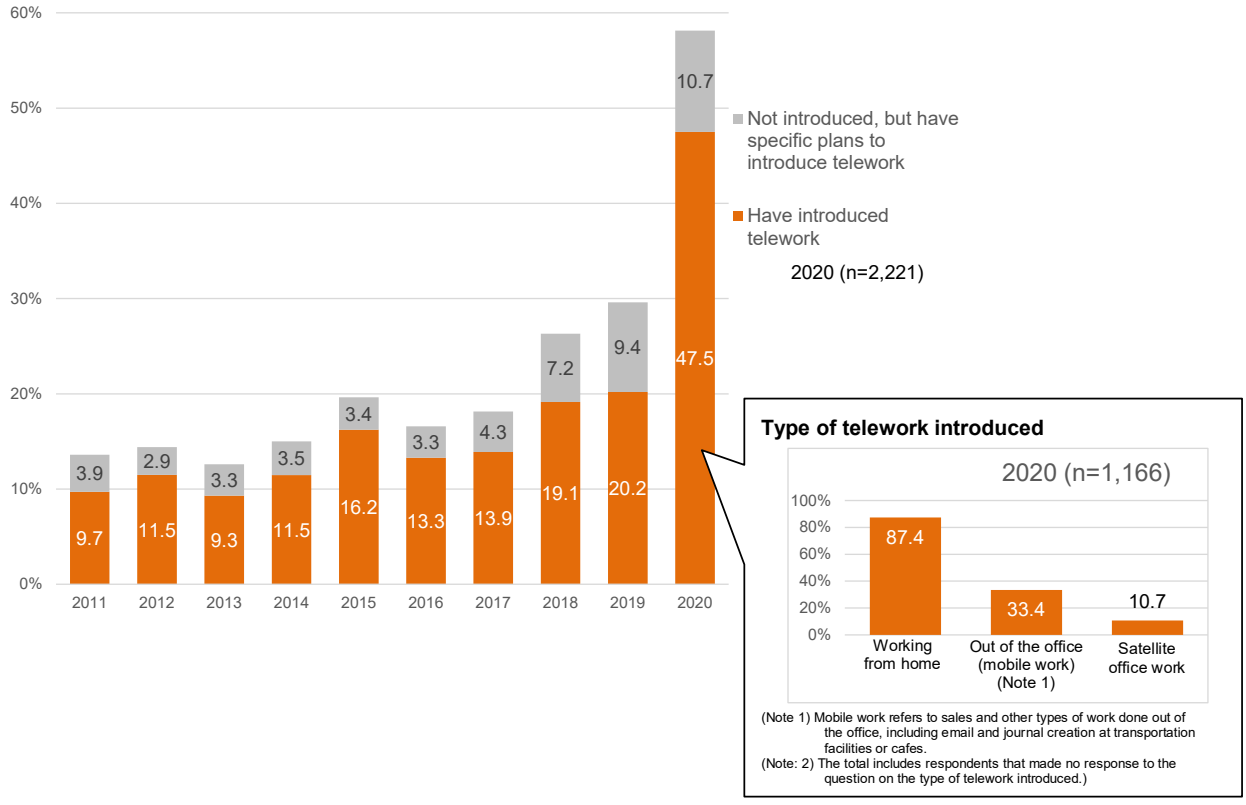
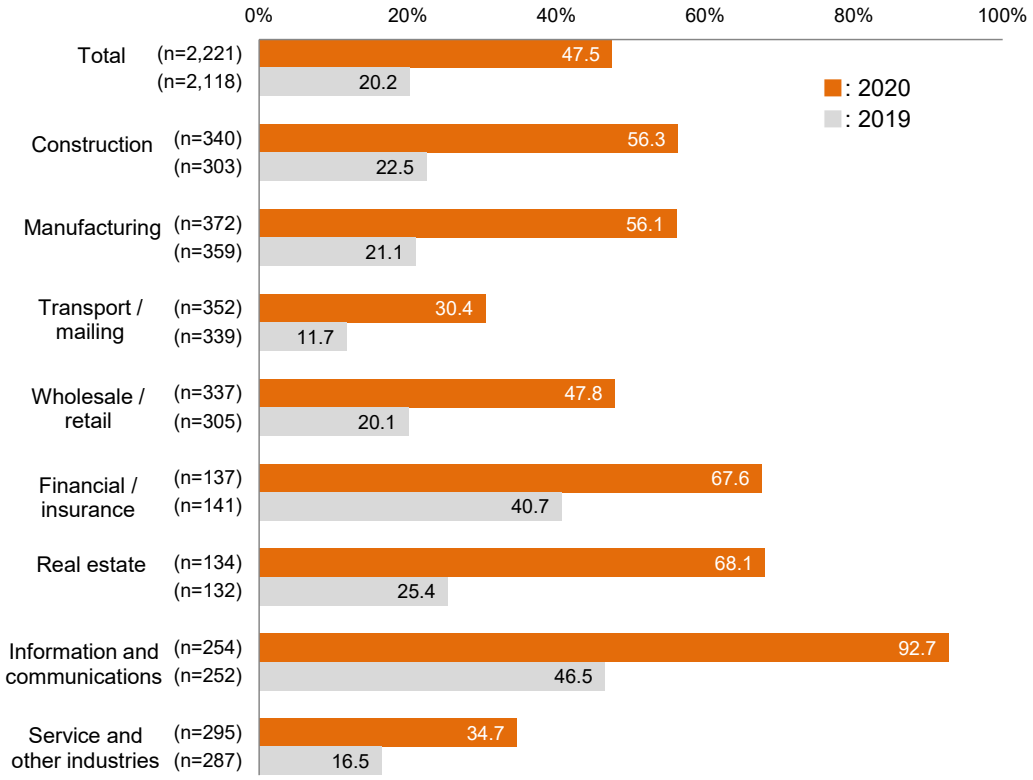


Figure 3-2: Telework introduction by industry and capitalization

By industry



By capitalization

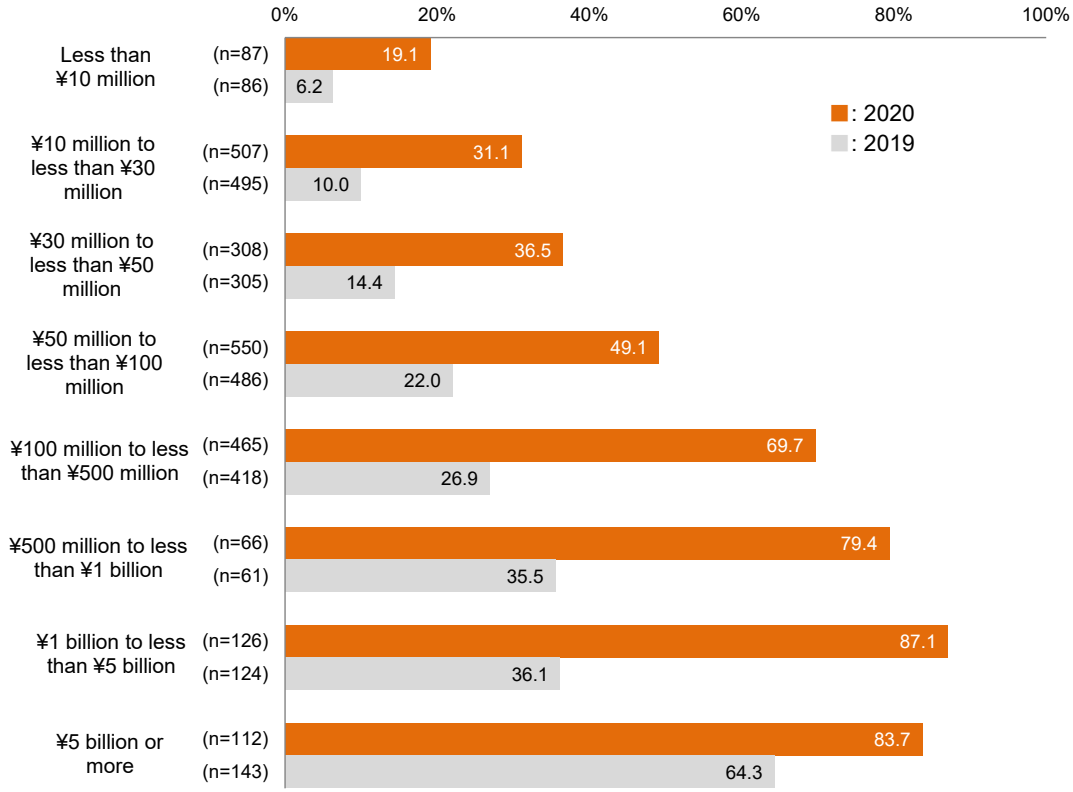


Figure 3-3: Percentage of telework employees

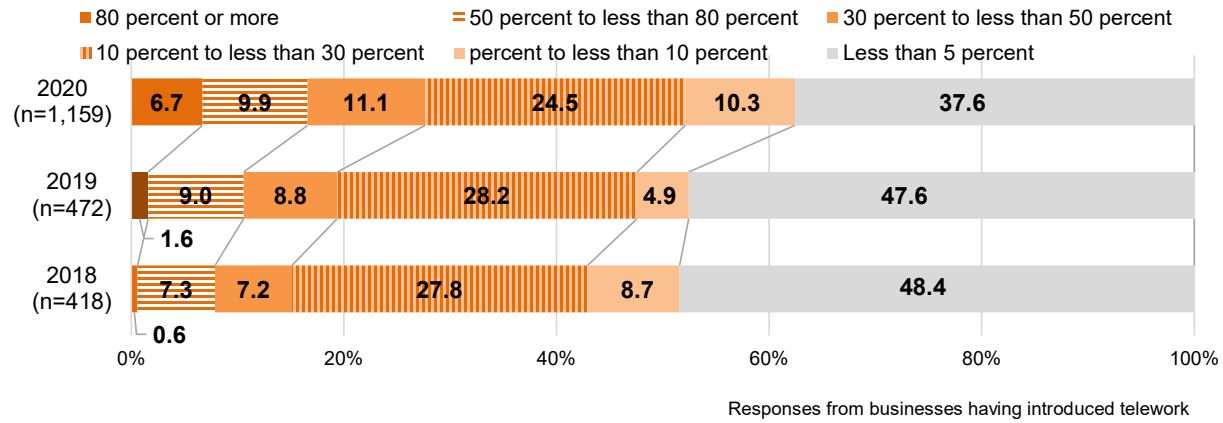


Figure 3-4: Purposes of introducing telework (multiple responses accepted)

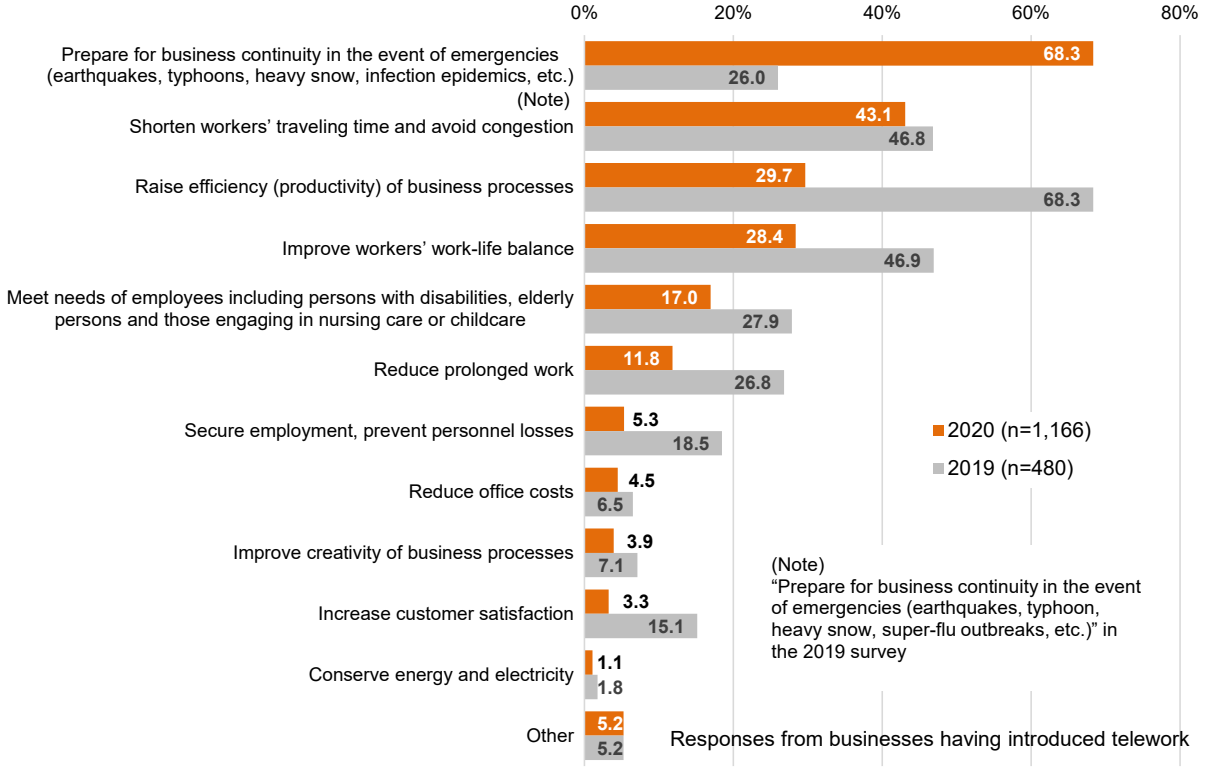
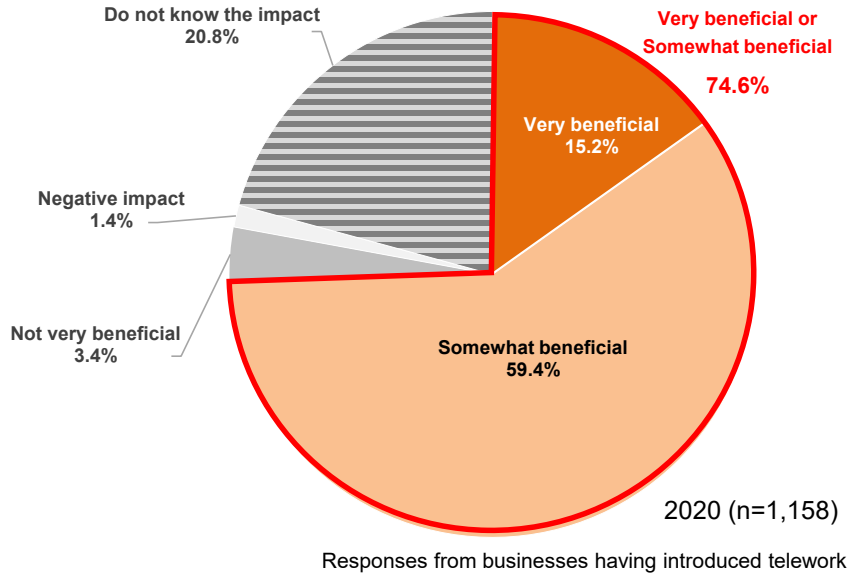
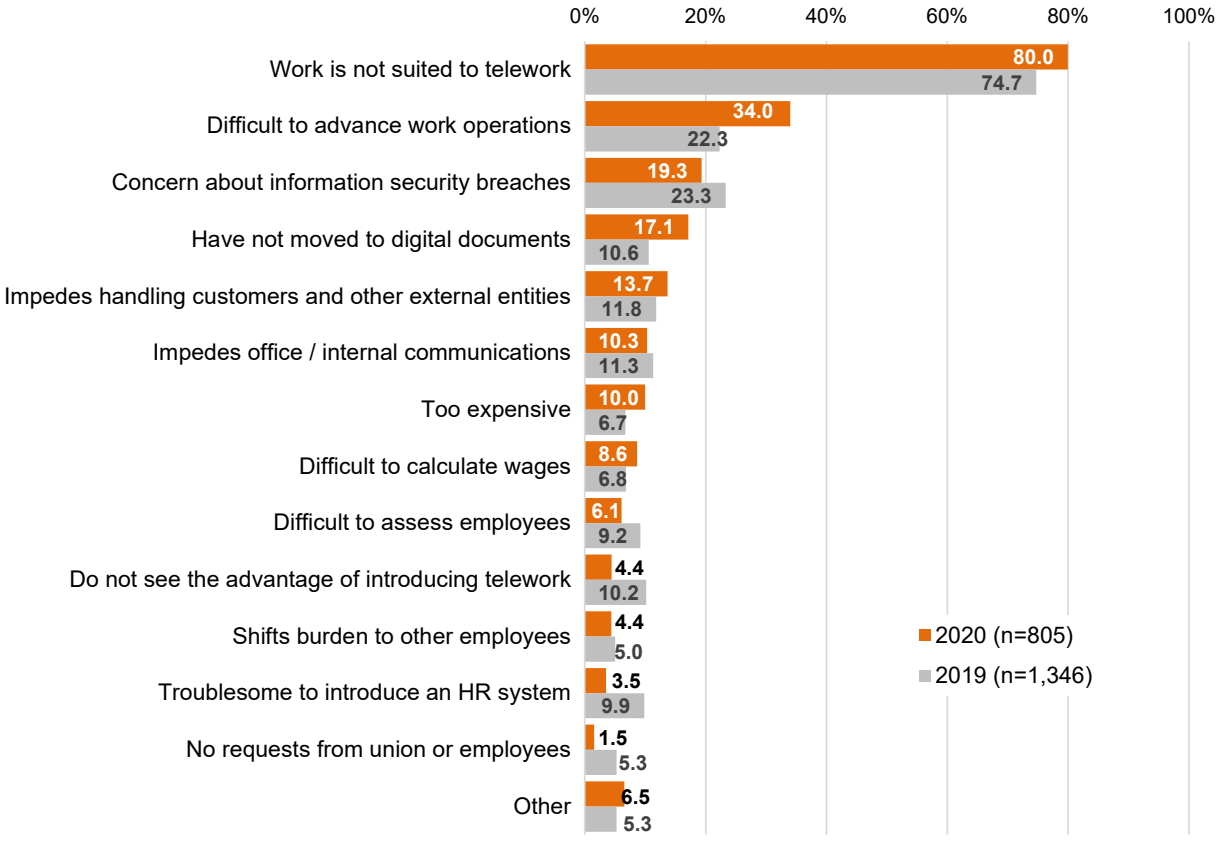


Figure 3-5: Telework benefits (2020)



Responses from businesses having introduced telework

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



Responses from businesses that have not introduced telework or made plans to do so.

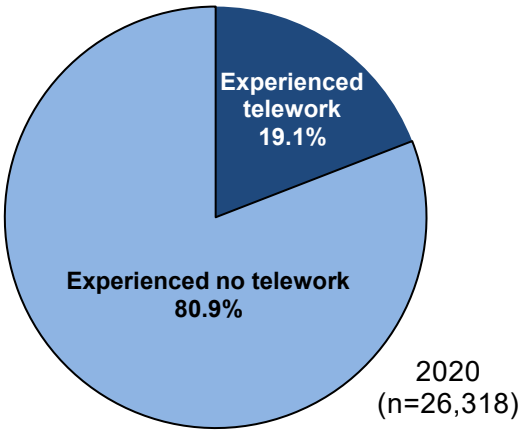
(2) Engagement in telework (individuals)

Of individuals aged 15 or older working for businesses or other organizations, 19.1% have the experience of engaging in telework. The percentage of respondents citing “working from home” among telework types is particularly high at 94.1%.

Of individuals who have not engaged in telework, those hoping to engage in telework account for 18.1%.

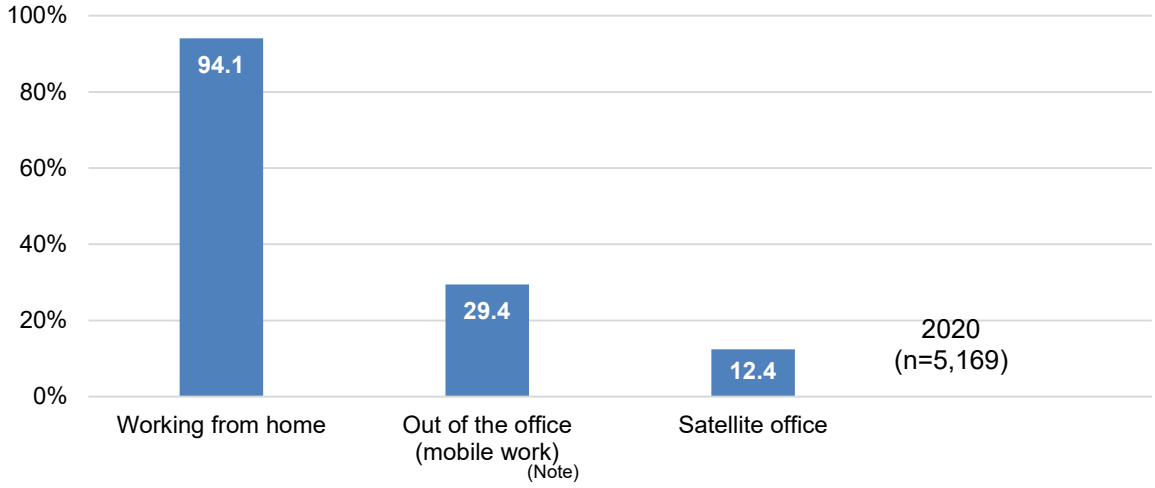
The most frequently cited reason for failing to engage in telework is that “work is not suited to telework” (57.5%), followed by the reason that “there is not a telework system at the employer” (31.6%).

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



As a percentage of individuals aged 15 or older and working for businesses and other organizations

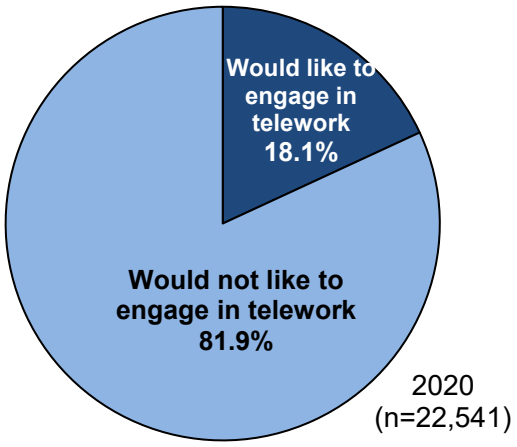
Figure 3-8: Type of telework (multiple responses accepted)



(Note) 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.

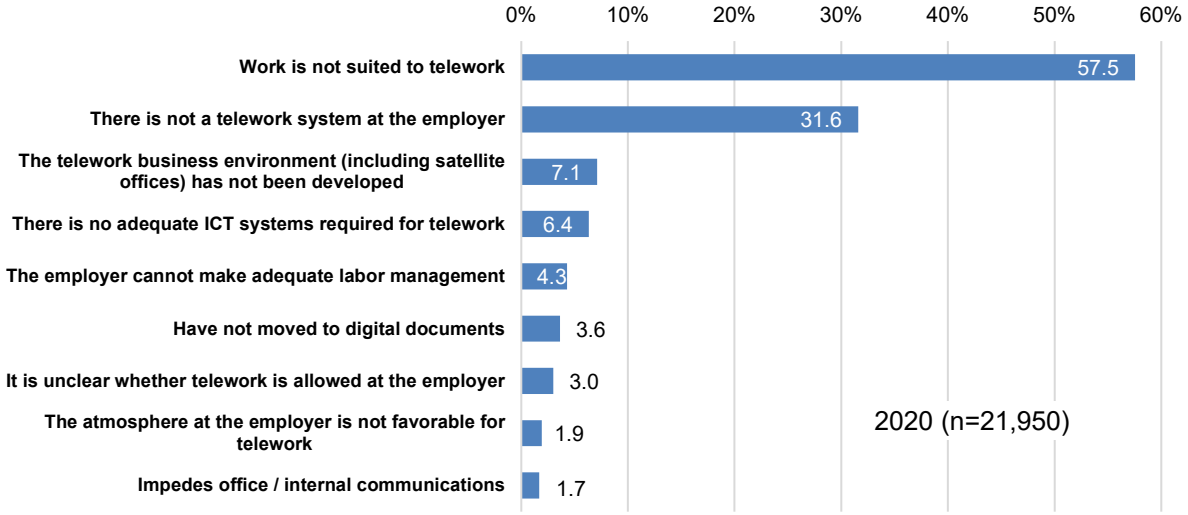
Responses from employees who are aged 15 or more and have engaged in telework.

Figure 3-9: Whether or not individuals would like to engage in telework (2020)



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) (2020)



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)

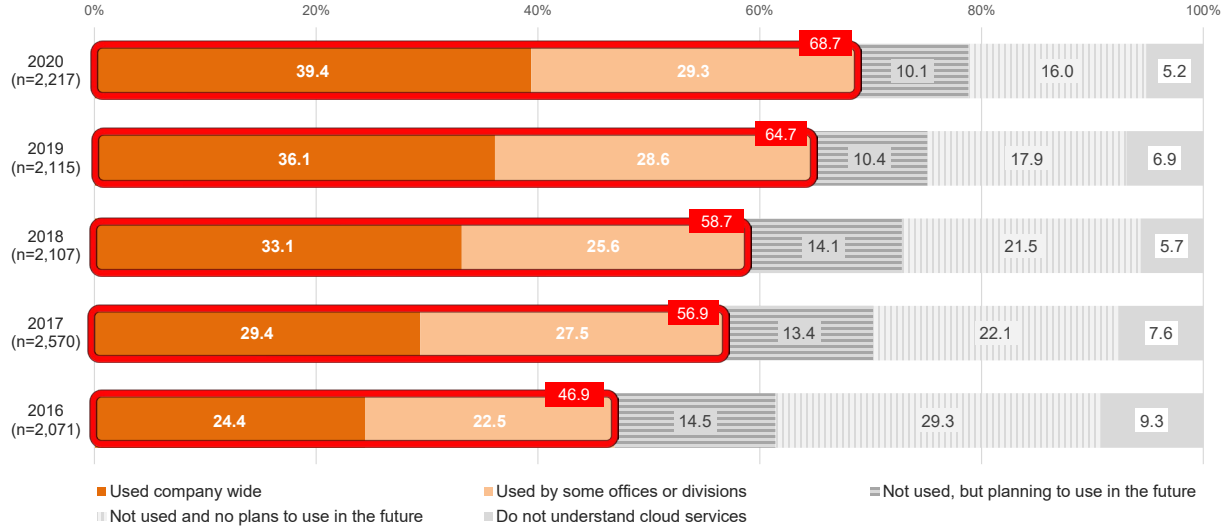
The share for businesses using at least some cloud computing services (hereafter referred to as “cloud services”) rises to 68.7%.

The most frequently cited among cloud services is “file storage and data sharing” (59.4%), followed by “email” (50.3%) and “Information sharing / portal” (44.8%). Users of advanced services such as “sales support” and “production management” are limited.

Reasons for using cloud services include “the same services are available irrespective of location or equipment” (46.8%) and “no need to have internal asset and storage systems” (43.5%).

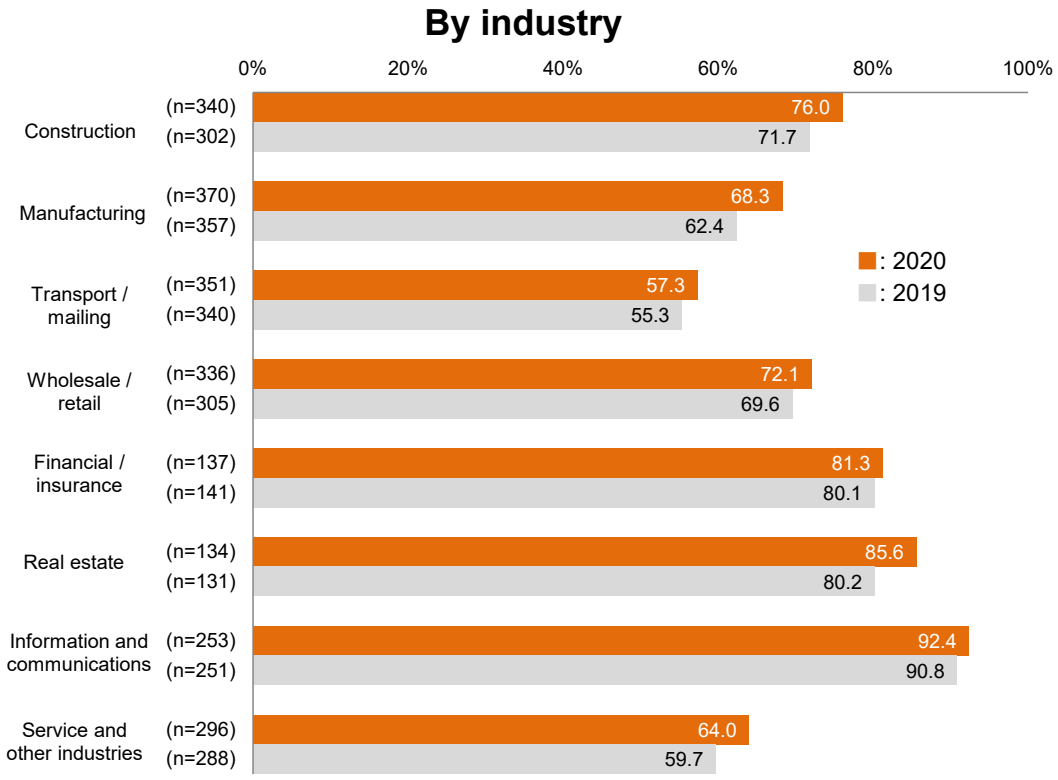
As for the effects of the use of cloud services, 87.1% recognized either “very beneficial” or “somewhat beneficial” effects.

Figure 4-1: Transitions in cloud service usage



Note: The 2017 survey treated information and communications companies as a single industry and indicated that ICT industry members’ share of the whole of survey targets increased from the previous year. Attention must be paid to this point for historical analysis. (Until the 2016 survey, ICT companies had been treated as a component of the services and other industries. See Figure 3-2 for a breakdown by industry.)

Figure 4-2: Cloud service usage by industry and capitalization



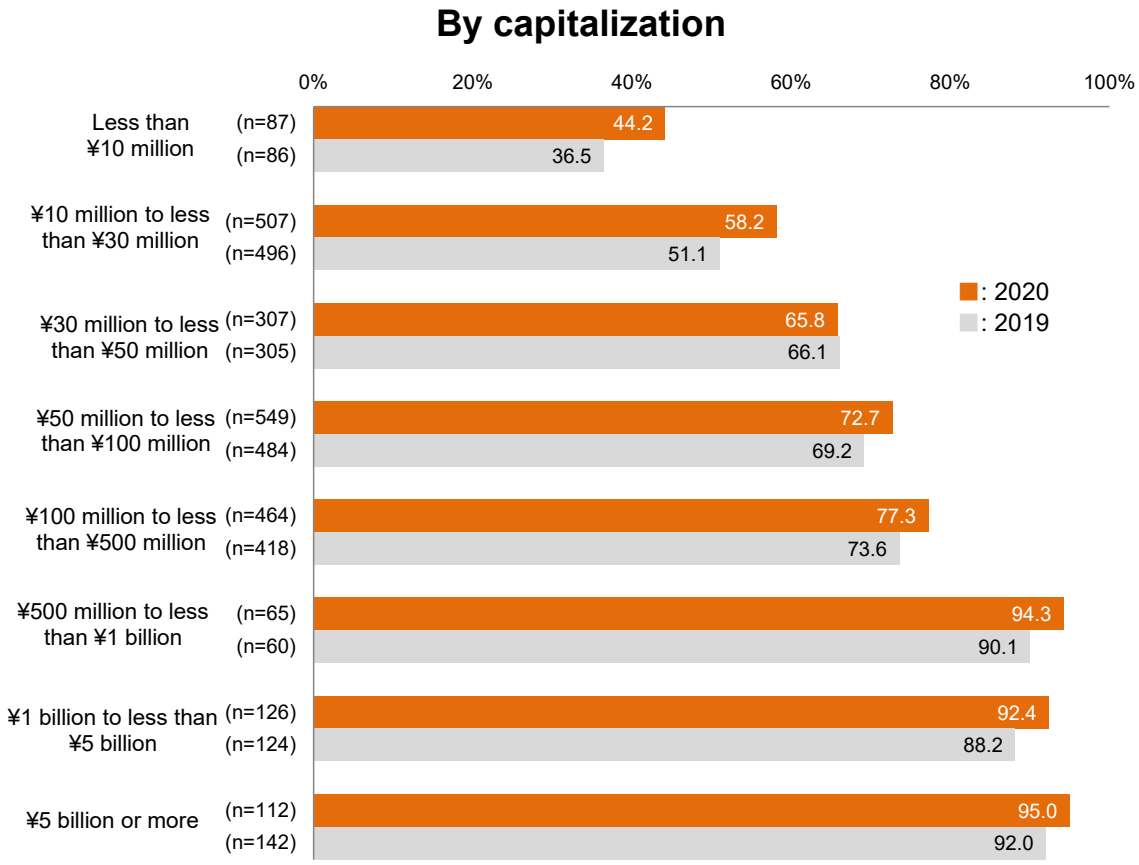


Figure 4-3: Cloud services used by businesses (multiple responses accepted)

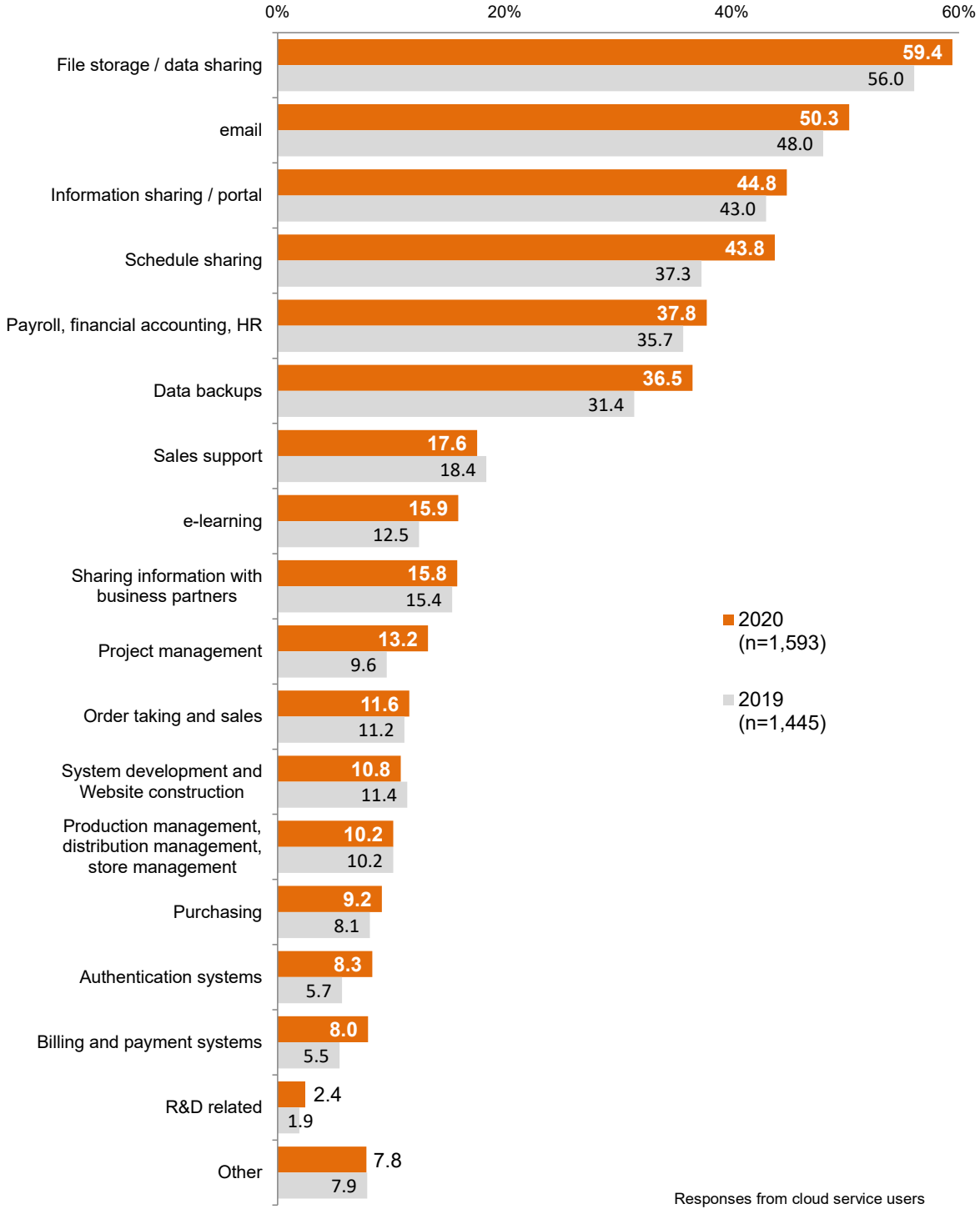
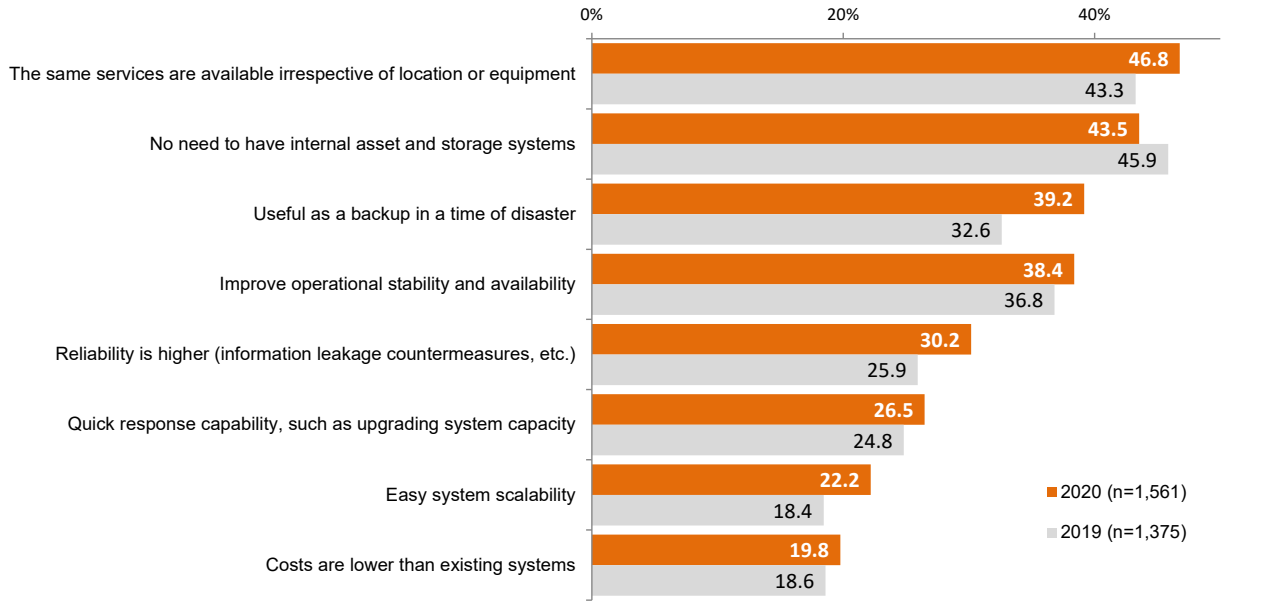
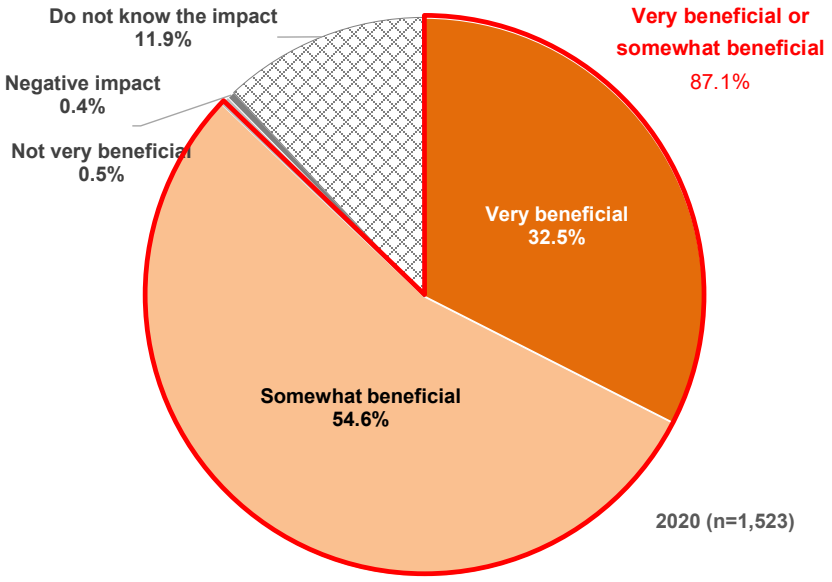


Figure 4-4: Reasons for using cloud services (multiple responses accepted)



Responses from cloud service users

Figure 4-5: Impact of cloud computing services (2020)



Responses from cloud service users

(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 12.4% of respondents. The percentage of those that have done so and are planning to do so is 22.2%.

Among purposes of digital data collection/analysis with IoT/AI systems, “improvement of business efficiency/operations” is the most frequently cited (81.3%), followed by “improvement of customer services” (33.7%) and “overall optimization of business operations” (22.6%).

Those saying that the introduction of IoT and AI systems or services has been “very effective” or “somewhat effective” account for 81.1% of respondents.

The most frequently cited among components of IoT and AI systems or services that have been introduced are “surveillance cameras” (36.0%), followed by “physical security devices” (27.9%) and “non-contact IC cards” (23.1%).

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

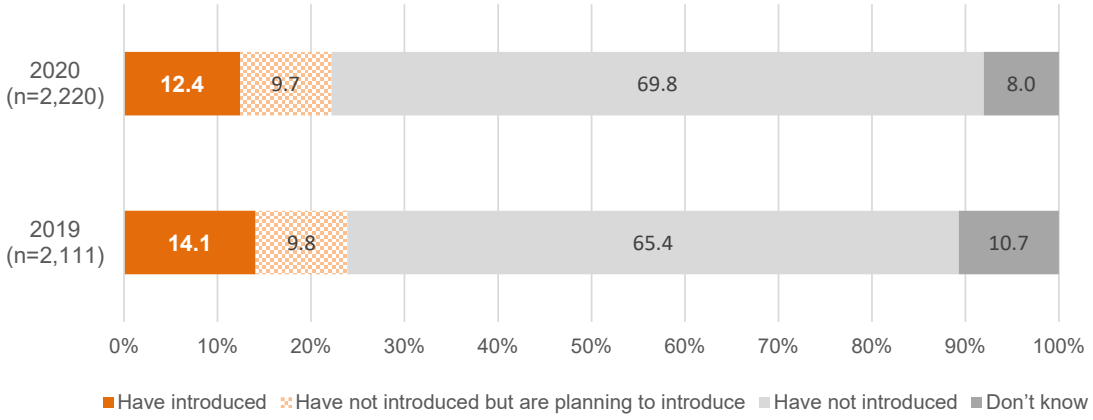


Figure 4-7: Purposes of digital data collection/analysis (multiple answers accepted) (2020)

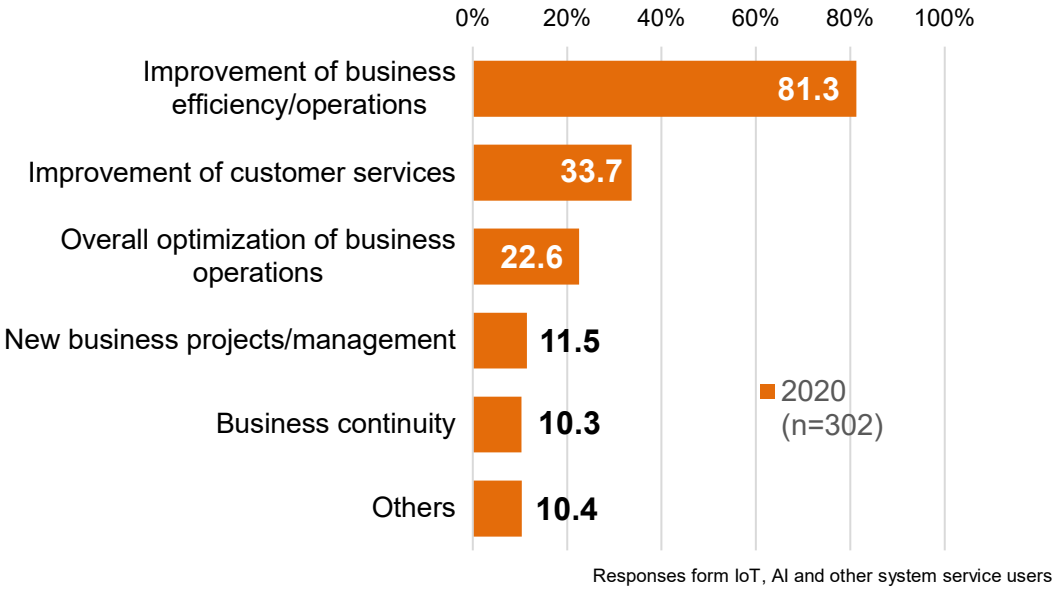
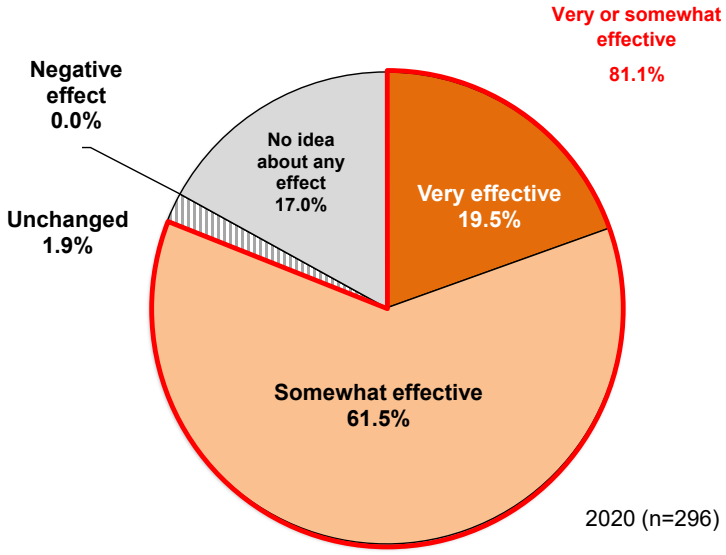
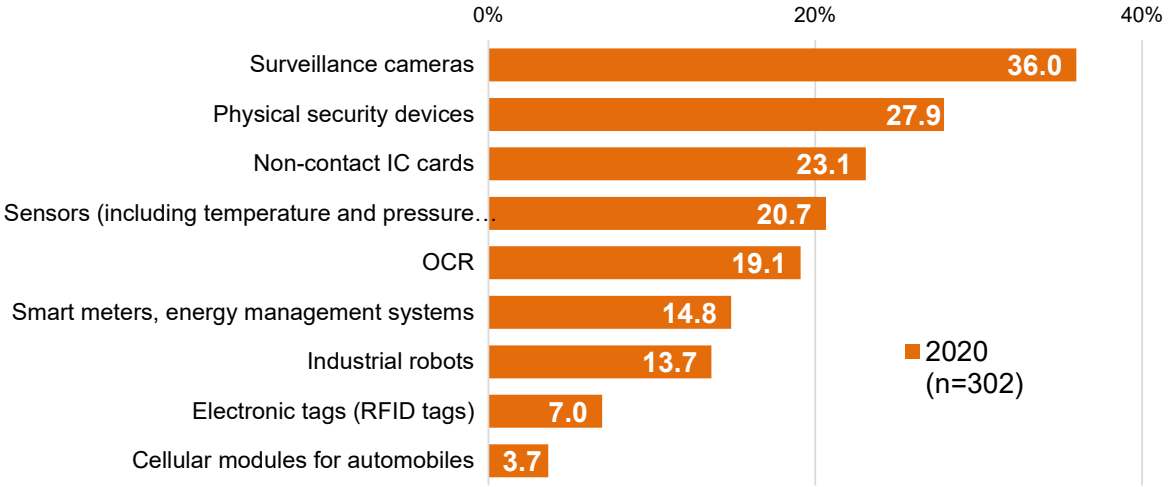


Figure 4-8: Effects of IoT/AI system/service introduction (2020)



Responses form IoT, AI and other system service users

Figure 4-9: Components of AI/IoT systems/services (multiple answers accepted) (2020)



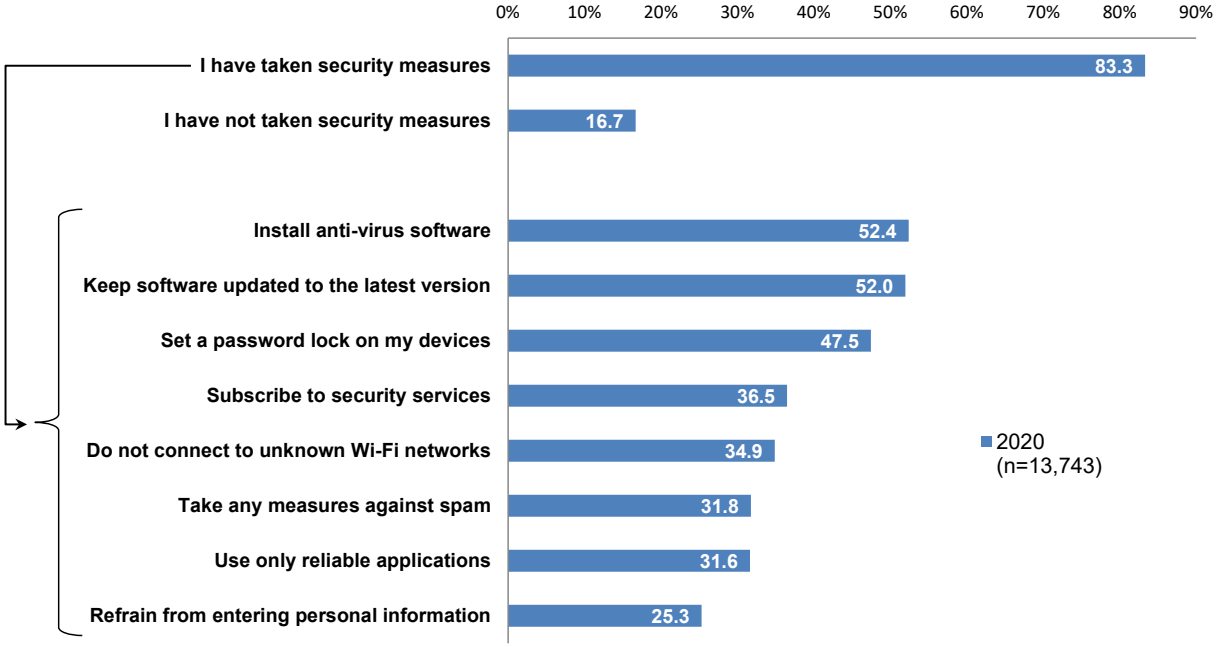
Responses form IoT, AI and other system service users

5. Safety and Security Efforts

(1) State of security measures (households)

Of households that use the internet, 83.3% have taken some security measures. The most common security measures taken are “installing anti-virus software,” at 52.4%. This is followed by “keeping software updated to the latest version” (52.0%) and “setting a password lock on my devices” (47.5%).

Figure 5-1: State of security measures (multiple responses accepted) (2020)



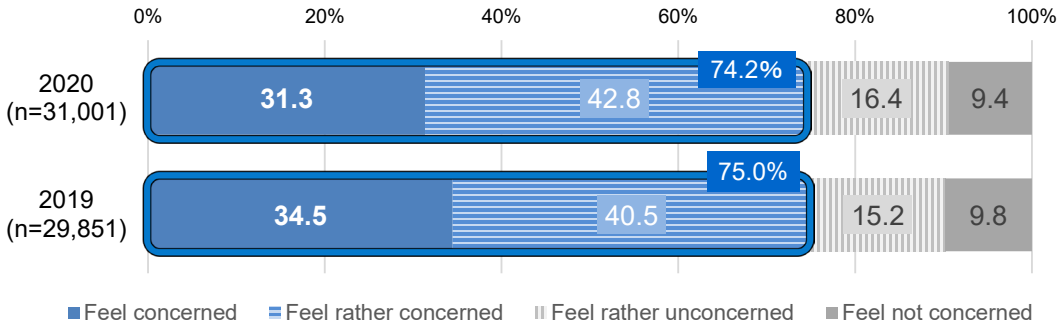
Tabulating responses from households that have at least one member who has used the internet in the past year

(2) Concerns about using the internet (individuals)

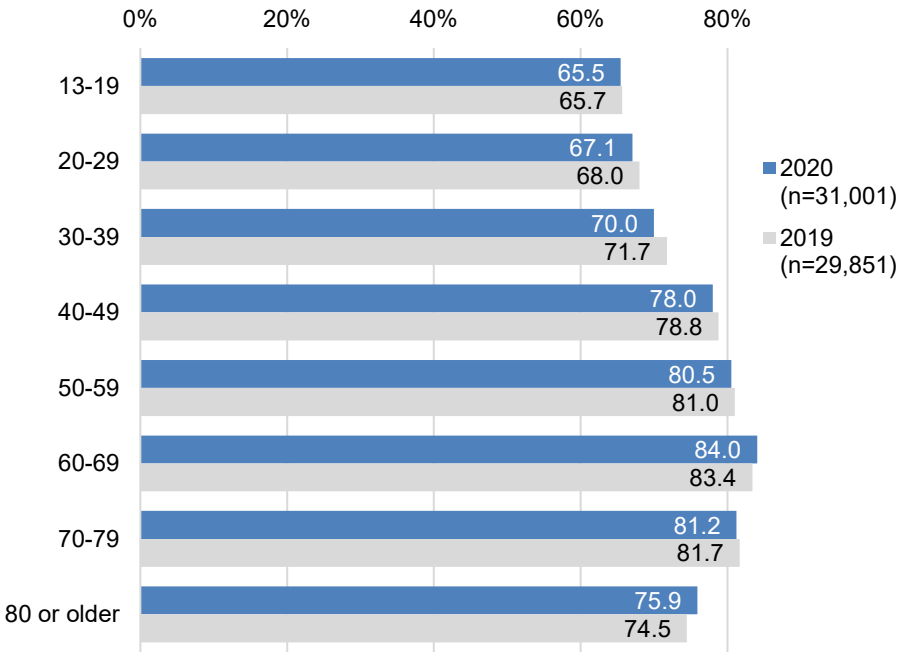
The combined percentage of internet users who “feel concerned” and “feel rather concerned” during internet use stands at 74.2%.

The most frequently cited type of concern about using the internet is “leak of personal information and internet use history” (cited by 91.6%), followed by “computer virus infections” (63.4%) and “concern about fraudulent email or fraud using the internet” (52.9%).

Figure 5-2: Concerns about using the internet

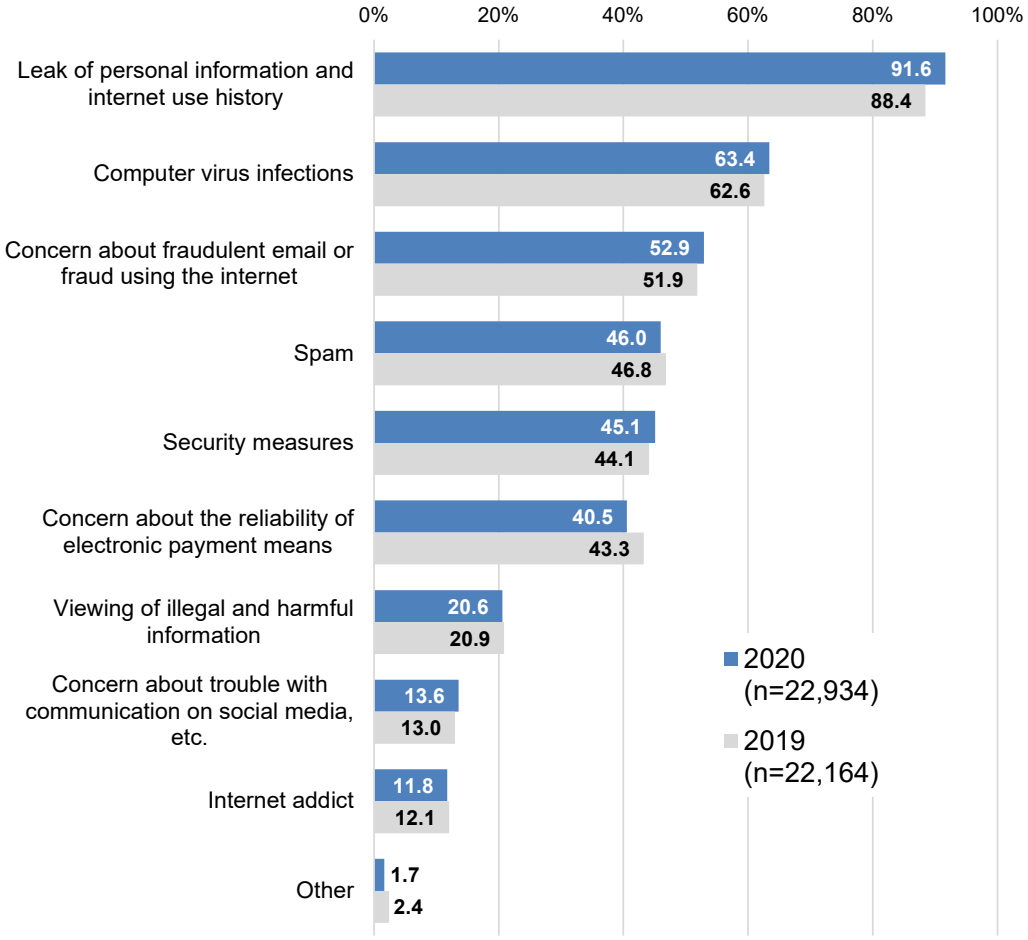


Responses from Internet users



As a percentage of Internet users who “feel concerned” and “feel rather concerned”

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



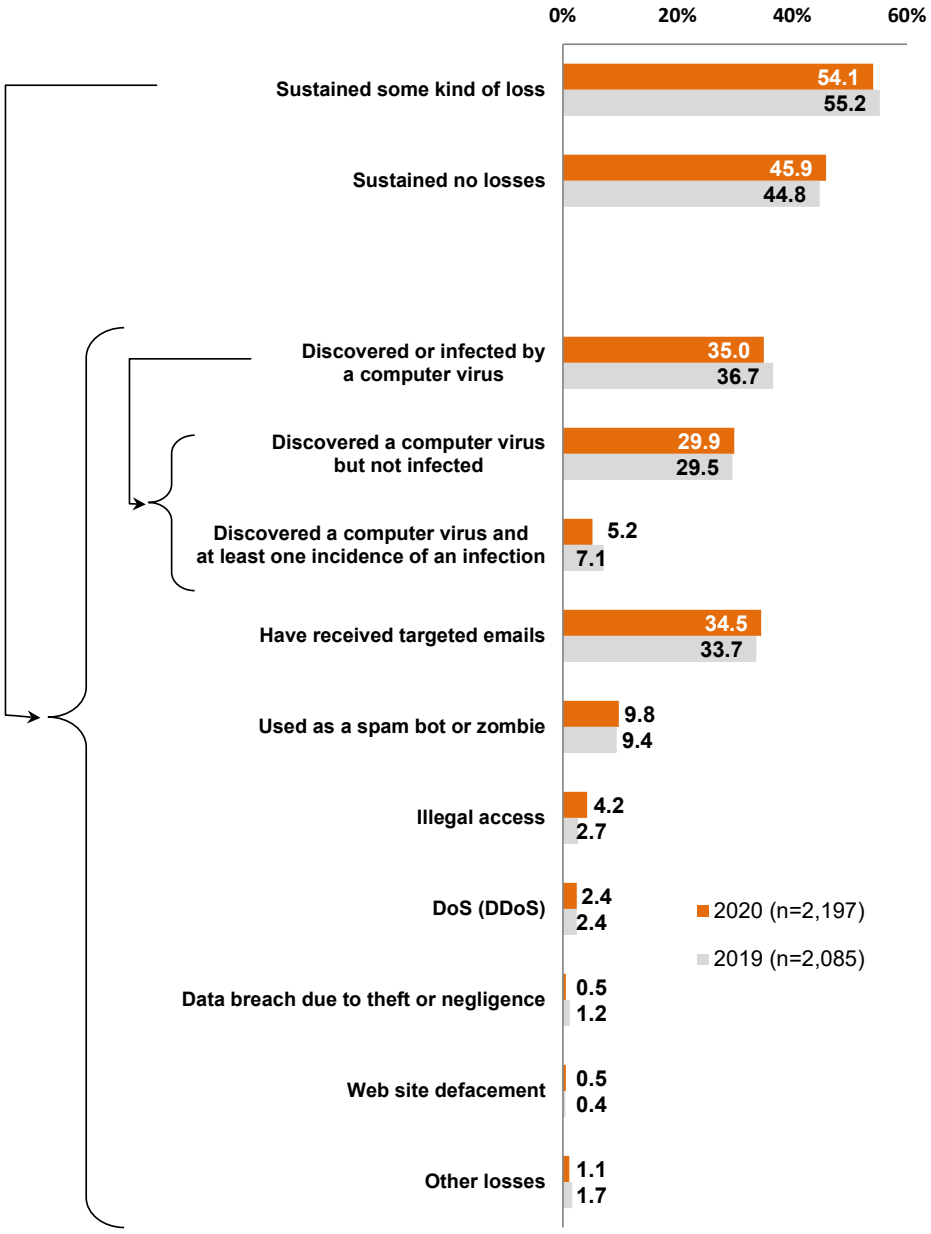
Responses from individuals who have used the internet and have concerns about using the internet

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

Among businesses that use information-communication networks, 54.1% report some losses resulting from a security breach during the use of information-communication networks in the past year. The most frequently cited type of security breach is “discovery of or infection with a computer virus” (cited by 35.0%), followed by “targeted emails” (34.5%).

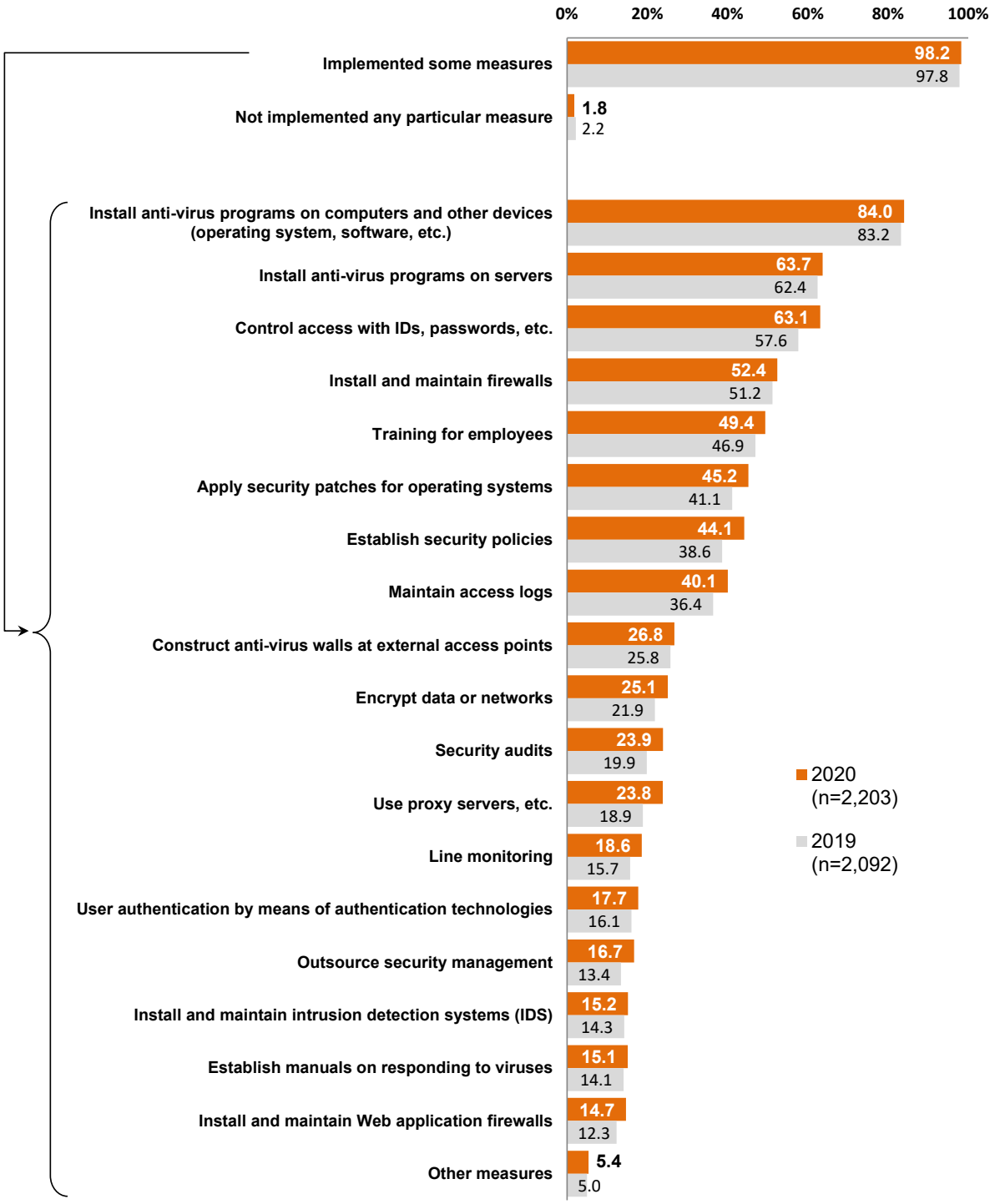
The percentage of businesses that implement some security measures is 98.2%. By type of security measure, the implementation rate is the highest at 84.0% for “installing anti-virus programs on computers and other devices (operating systems, software, etc.), followed by 63.7% for “installing anti-virus programs on servers” and 63.1% for “controlling 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)



Responses from businesses using information and communication networks (intra-business or inter-business networks and the internet)

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



Responses from businesses using information and communication networks (intra-business or inter-business networks and the internet)