PRESS RELEASE

Ministry of Internal Affairs and Communications

May 29, 2020

“Communications Usage Trend Survey” in 2019 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 September 2019.

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 internet user share rises to 89.8% close to 90%. Particularly, the share increases by more than 10 percentage points for those aged between 6 and 12, and 60 or more.

2 The smartphone ownership rate among households continues increasing, topping 80% for the first time. The rate among individuals continues an uptrend, reaching 67.6%.

3 The share for businesses having introduced cloud computing services exceeds 60% for the first time. 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 85.5% of those having introduced such services.

4 About 30% of businesses covered by the survey have introduced or are planning to introduce telework, posting an uptrend. “Information and communications” and “financial and insurance” industries post higher telework introduction rates than other industries.

(The survey took place in late September 2019 before the COVID-19 pandemic.)

[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	December 2019	
Survey area	Nationwide	
Scope of attributes / Level of survey	Households headed by someone aged 20 or older (as of April 1, 2019) 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 [38,737 households]	5,930 businesses [4,587 businesses]

Effective responses [%]	15,410 households (39,658 persons) [39.8%]	2,122 businesses [46.3%]
Survey items	Communication services usage, communication-device ownership, etc.	
Survey method	Survey form sent and collected by postal mail or online (email)	

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Information and Communications Bureau, MIC
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Released May 29, 2020

Attachment 1

Highlights of the Communications Usage Trend Survey in 2019

Highlights of the Survey

- The internet user share rises to 89.8% close to 90%. Particularly, the share increases by more than 10 percentage points for those aged between 6 and 12, and 60 or more.
- The smartphone ownership rate among households continues increasing, topping 80% for the first time. The rate among individuals continues an uptrend, reaching 67.6%.
- The share for businesses having introduced cloud computing services exceeds 60% for the first time. 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 85.5% of those having introduced such services.
- About 30% of businesses covered by the survey have introduced or are planning to introduce telework, posting an uptrend. “Information and communications” and “financial and insurance” industries post higher telework introduction rates than other industries.

(The survey took place in late September 2019 before the COVID-19 pandemic.)

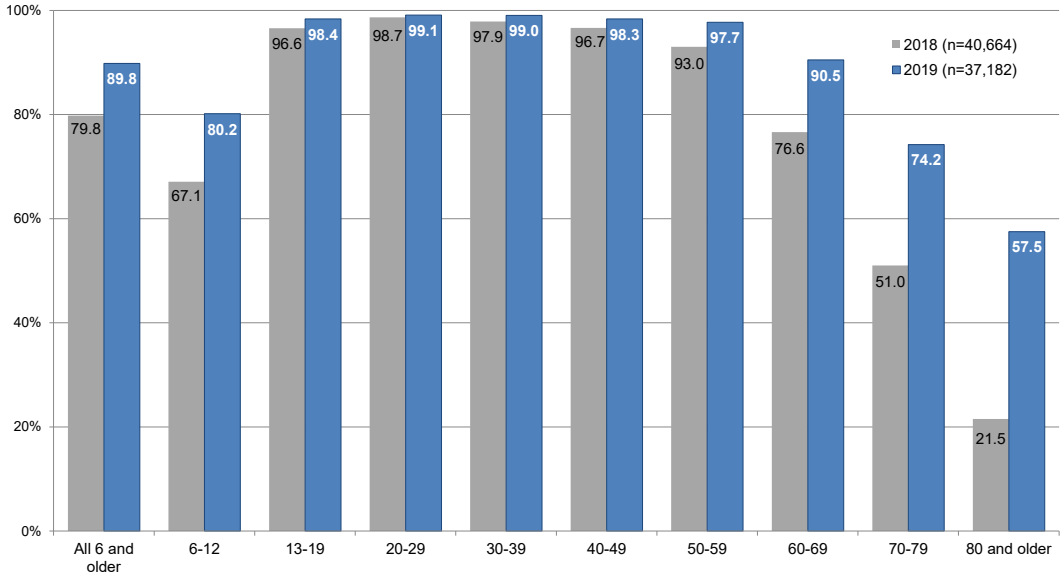
<Note>

* The survey took place in late September 2019.
* The 2016-2018 surveys used simple and detailed questionnaires to cover households and their members.
* 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 “Ownership of common communication devices (households)” in Page 3 and “Introduction of telework” in Page 7.

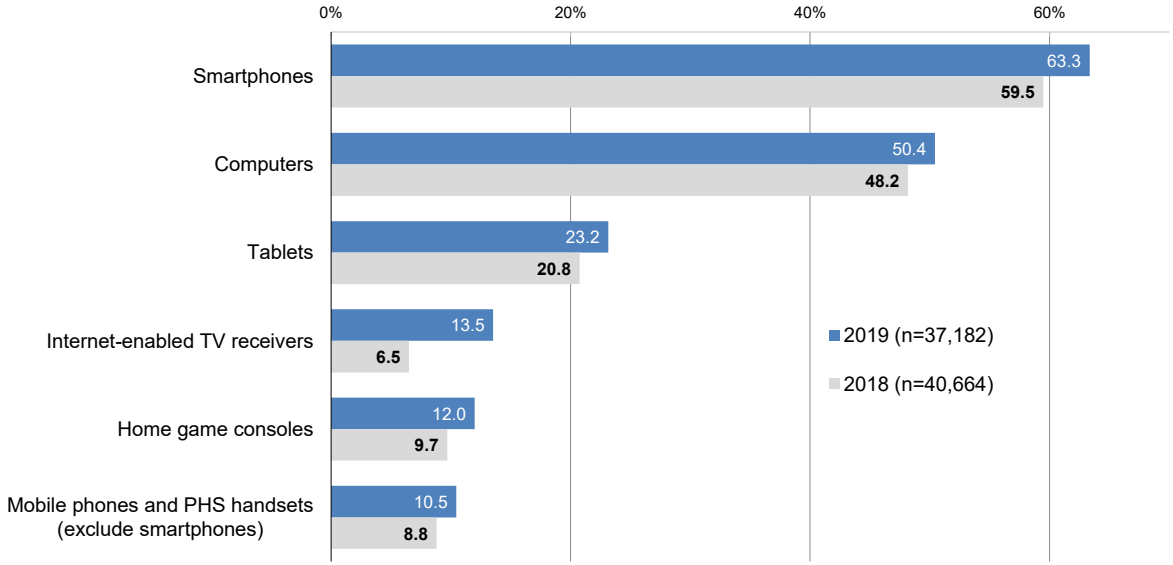
1. Internet Usage Trends

The internet user share rises close to 90%. Particularly, internet usage is increasing among people aged between 6 and 12, and 60 or more. Smartphones are used more frequently than computers for internet access.

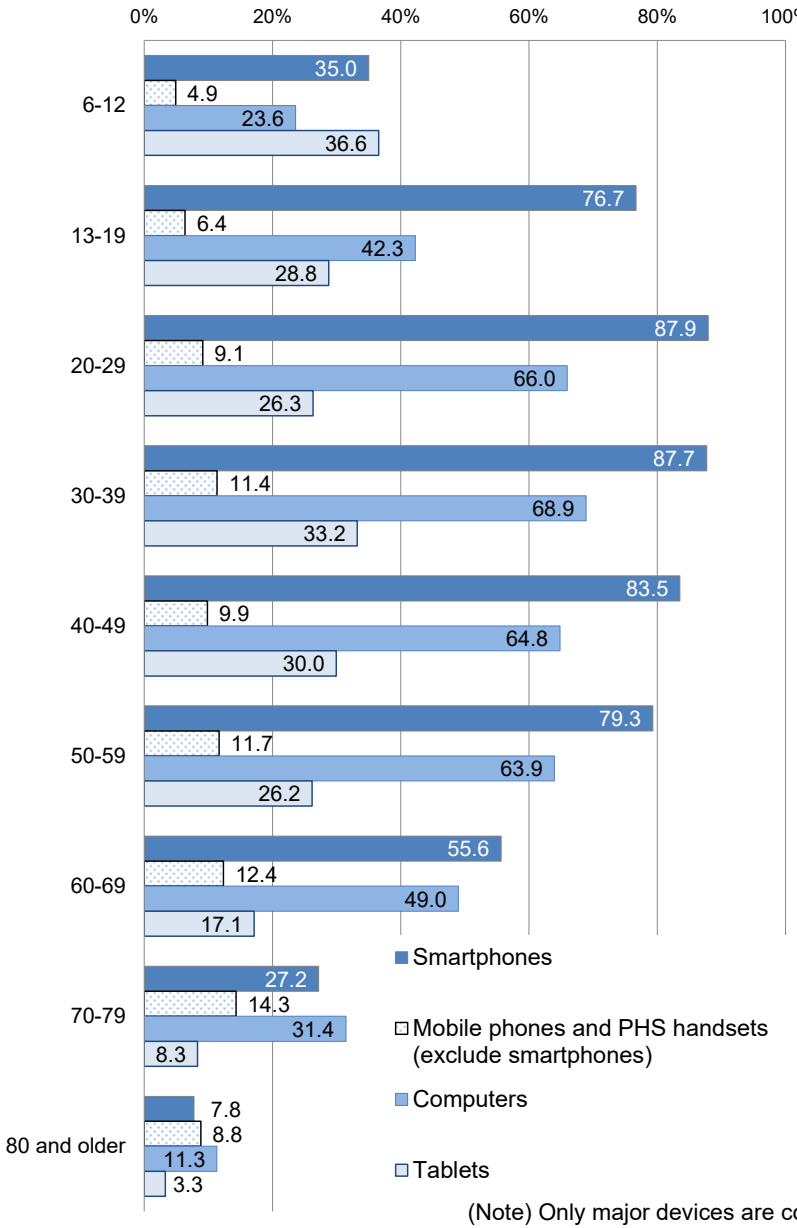
Internet usage (individuals)



Usage of internet access devices (individuals)



Usage of internet access devices by age group (individuals)

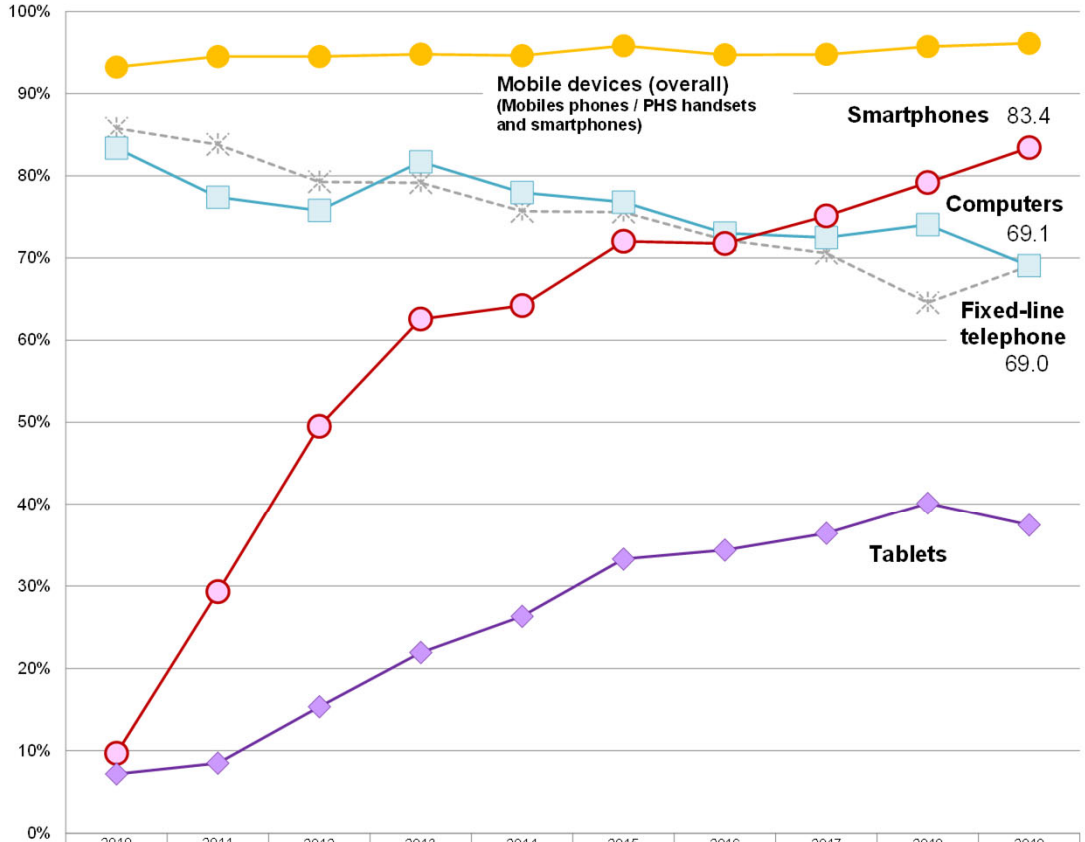


(Note) Only major devices are covered.

2. Proliferation of Communication Devices

Ownership of common communication devices (households) (2010-2019)

The smartphone ownership rate among households continues to top 80%, surpassing the fixed telephone ownership rate of 69.1% and the personal computer ownership rate of 69.0%.

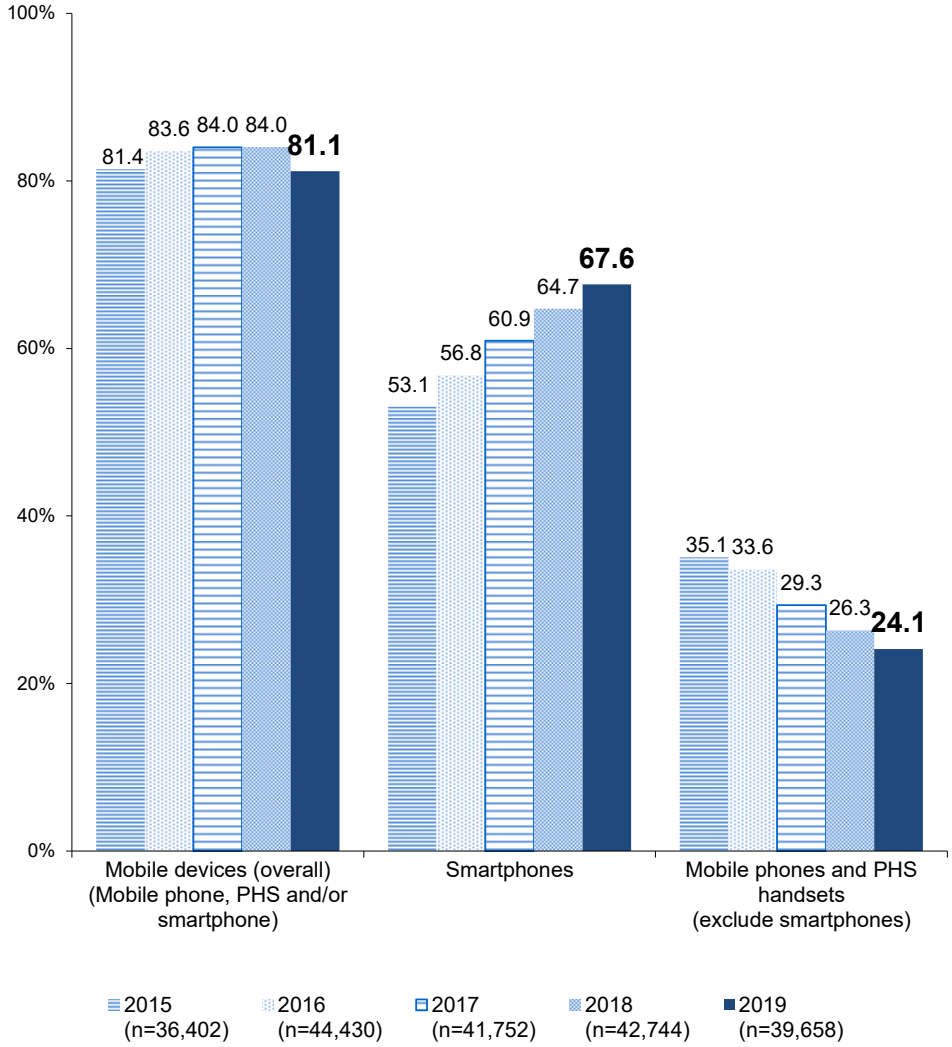


	2010 (n=22,271)	2011 (n=16,530)	2012 (n=20,418)	2013 (n=15,599)	2014 (n=16,529)	2015 (n=14,765)	2016 (n=17,040)	2017 (n=16,117)	2018 (n=16,255)	2019 (n=15,410)
Fixed-line telephone	85.8	83.8	79.3	79.1	75.7	75.6	72.2	70.6	64.5	69.0
Computers	83.4	77.4	75.8	81.7	78.0	76.8	73.0	72.5	74.0	69.1
Smartphones	9.7	29.3	49.5	62.6	64.2	72.0	71.8	75.1	79.2	83.4
Mobile devices (overall)	93.2	94.5	94.5	94.8	94.6	95.8	94.7	94.8	95.7	96.1
Tablets	7.2	8.5	15.3	21.9	26.3	33.3	34.4	36.4	40.1	37.4

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) (2015-2019)

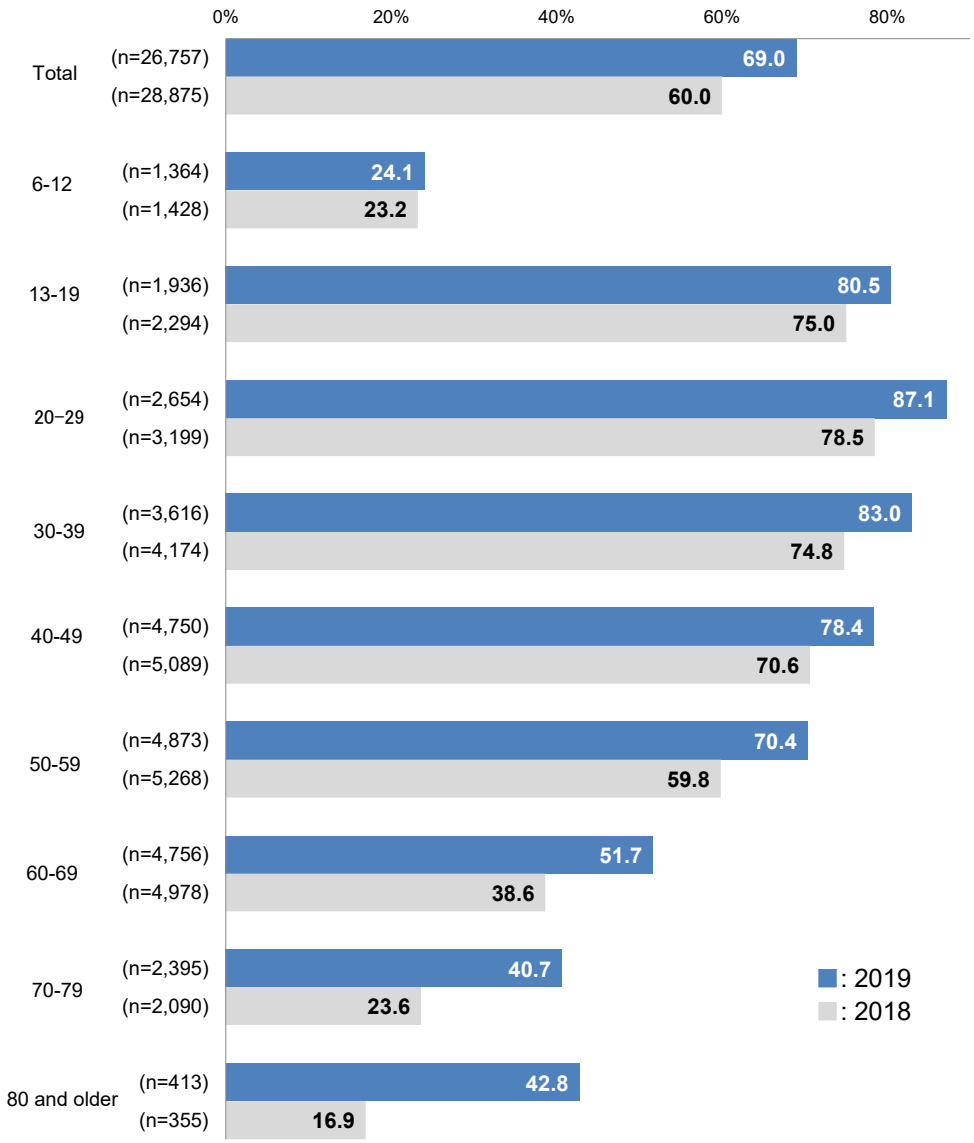
Ownership is increasing for smartphones while decreasing for mobile phones and PHS handsets (excluding smartphones).



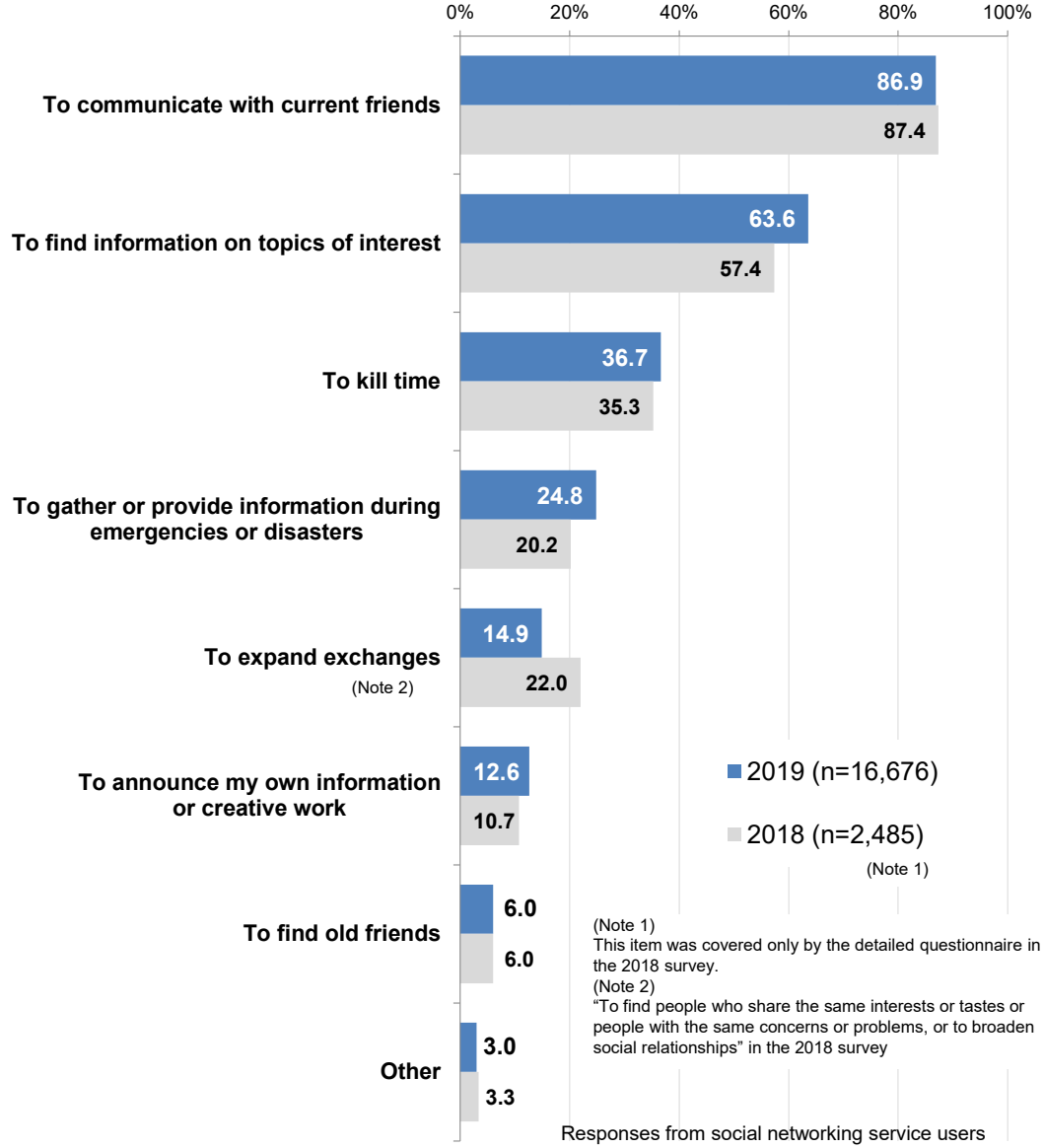
3. Social Networking Service Usage Trends (individuals)

The share for individuals using social networking services rises by 9 percentage points. The share increases for those using SNS “to find information on topics of interest.”

Social networking service usage (individuals)



Purposes of social networking service usage (individuals)



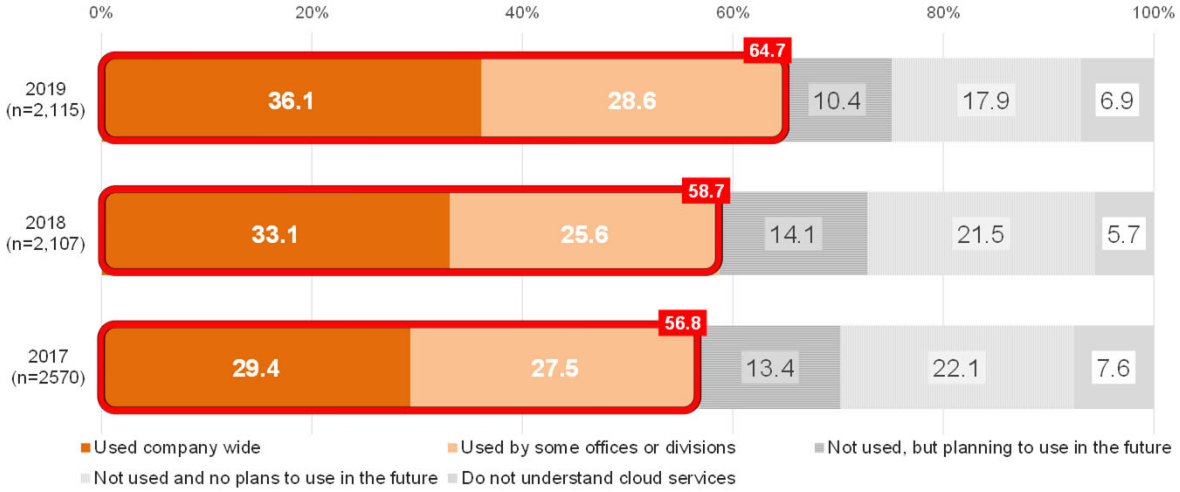
(Note 1)
This item was covered only by the detailed questionnaire in the 2018 survey.
(Note 2)
“To find people who share the same interests or tastes or people with the same concerns or problems, or to broaden social relationships” in the 2018 survey

Responses from social networking service users

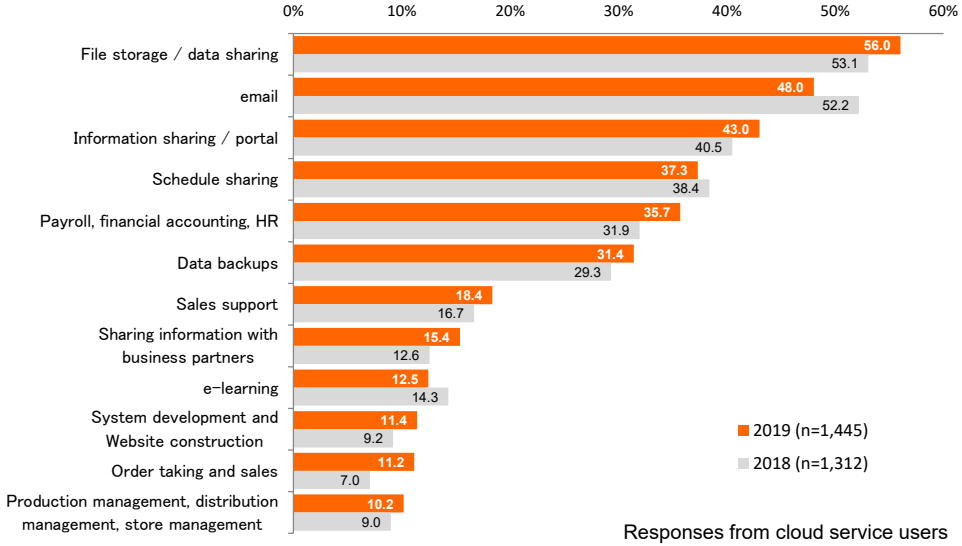
4. Cloud Service Usage (businesses)

The share for businesses having introduced cloud computing services continues an uptrend, exceeding 60% for the first time.
Purposes for using cloud services include “file storage/data sharing” and “email.” The most frequently cited reason for using cloud services is that “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

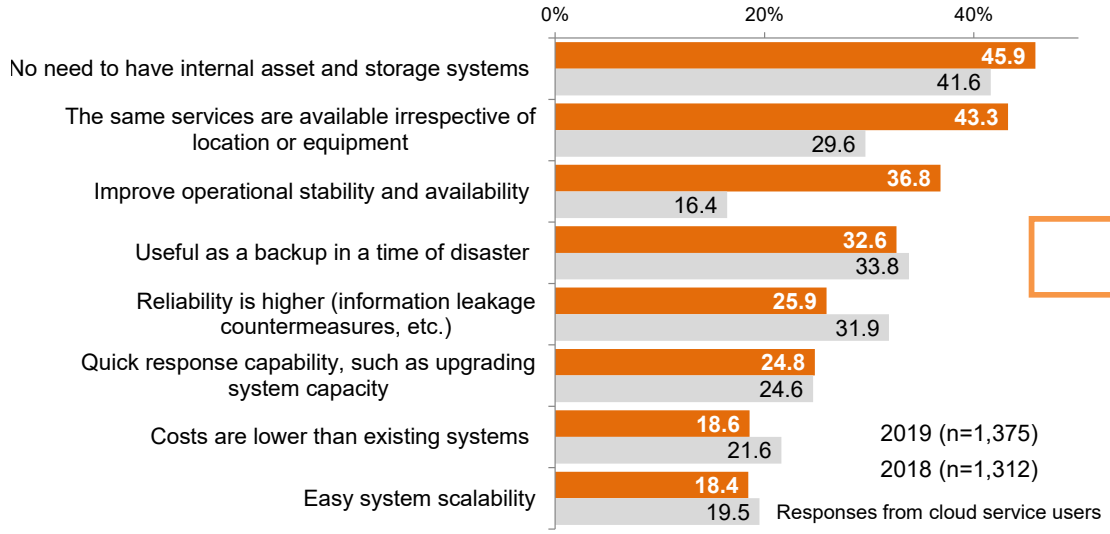


Purposes for using cloud services



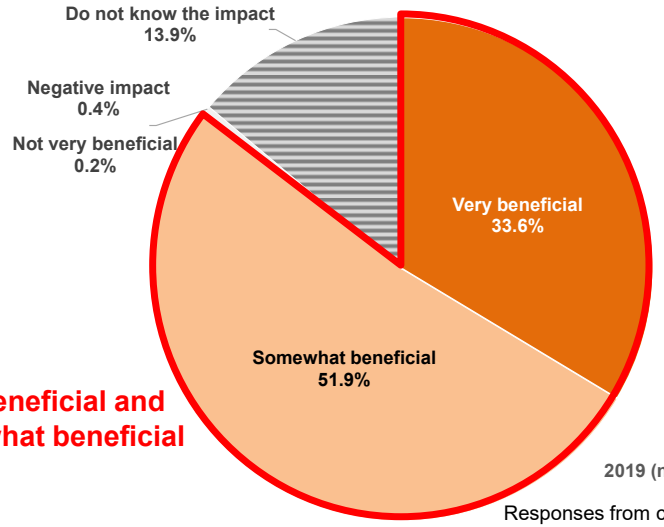
Responses from cloud service users

Reasons for using cloud services



Responses from cloud service users

Impact of cloud computing services



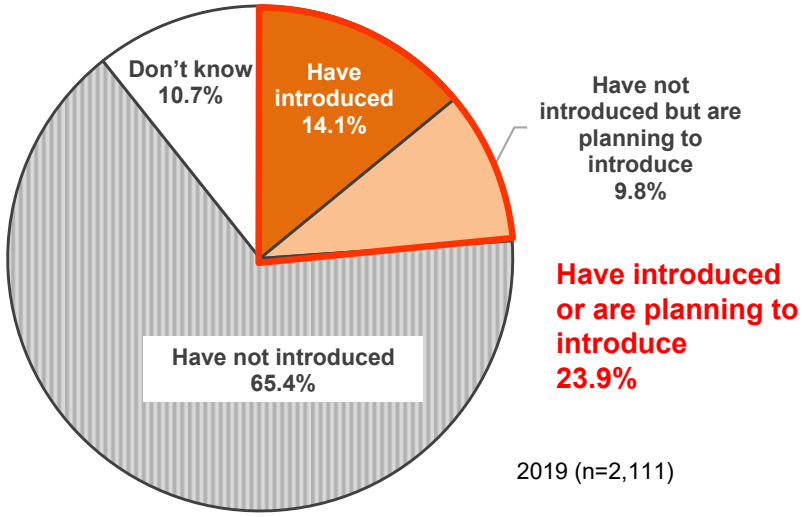
Very beneficial and somewhat beneficial 85.5%

Responses from cloud service users

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

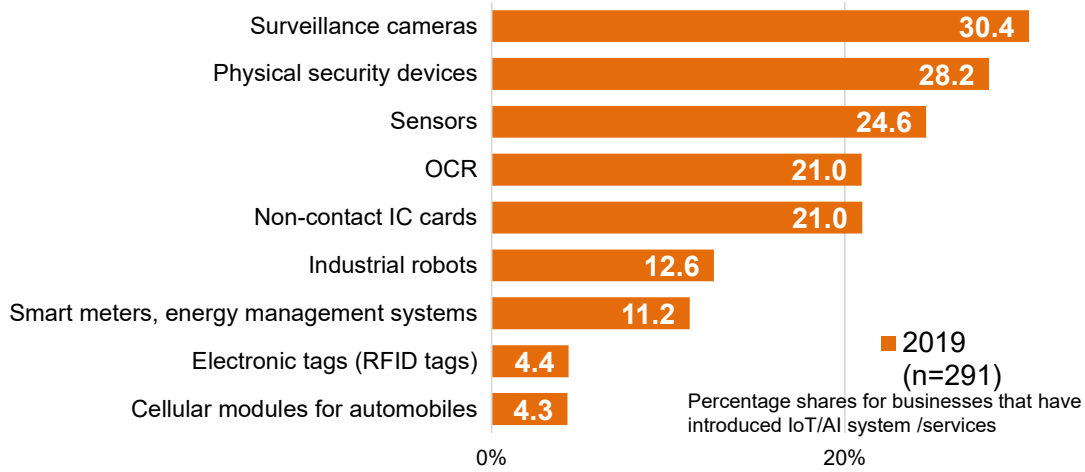
Introduction of IoT/AI systems/services

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

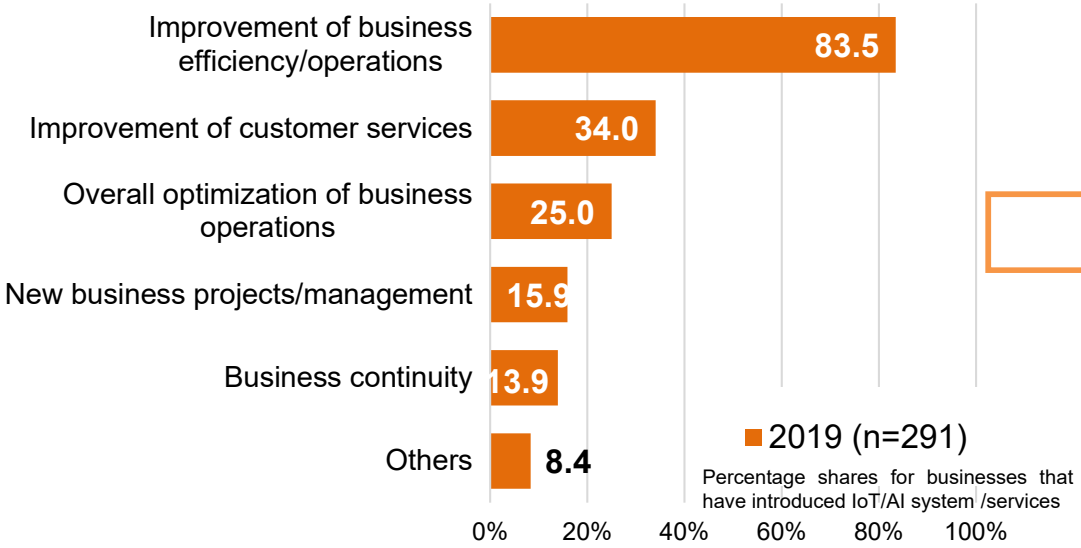


Devices for introduced systems or services

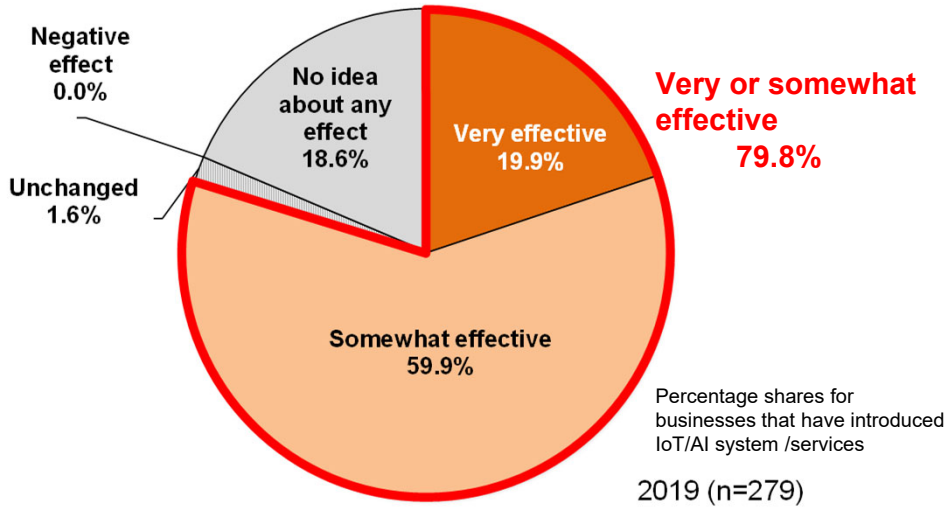
The most frequently cited responses among components of IoT and AI systems or services that have been introduced are "surveillance cameras" (30.4%), followed by "Physical security devices" (28.2%).



Purposes of IoT/AI digital data collection and analysis



Effects of IoT /AI system/service introduction

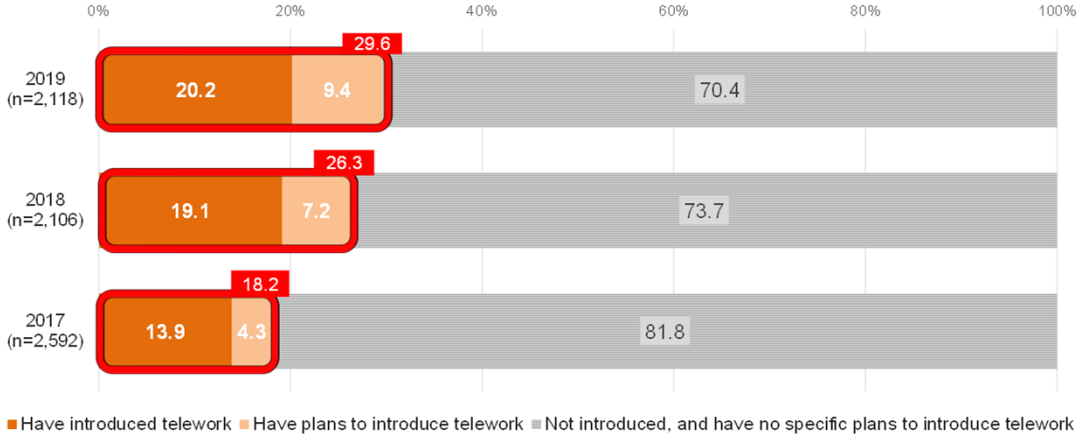


6. Introduction of Telework (businesses)

The survey took place in late September 2019 (before the COVID-19 pandemic).

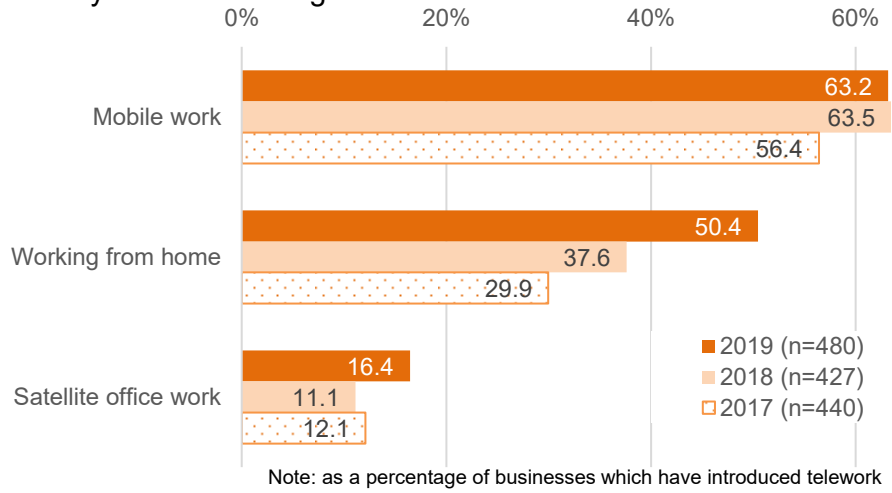
Introduction of telework

About 30% of businesses covered by the survey have introduced or are planning to introduce telework, posting an uptrend.



Type of telework introduced

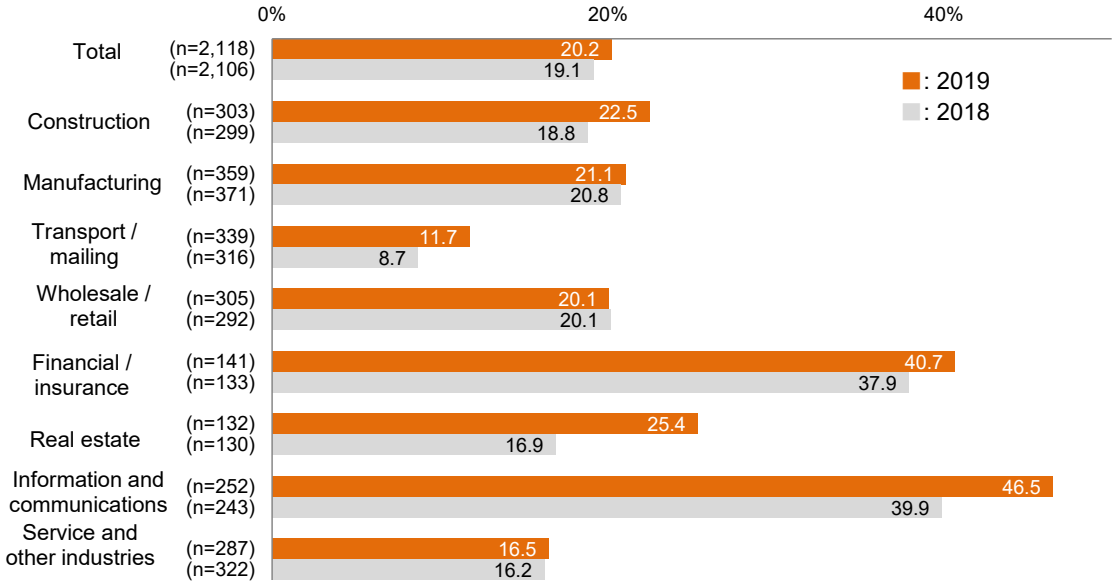
The share is rising for businesses introducing a system for working from home



Note: as a percentage of businesses which have introduced telework

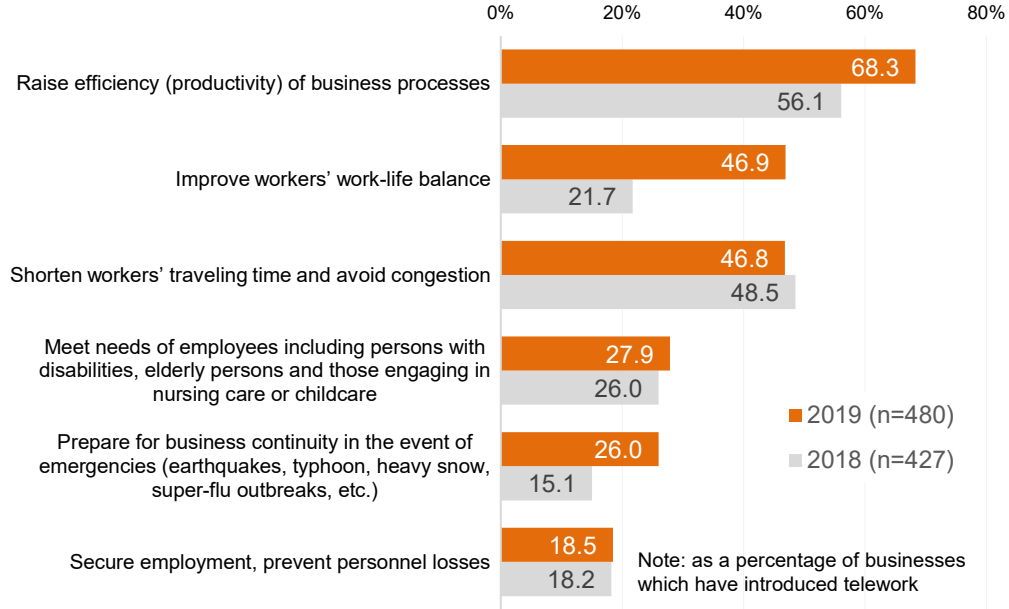
Introduction of telework by industry

"Information and communications" and "financial and insurance" industries post higher telework introduction rates than other industries.



Purposes of introducing telework

Frequently cited purposes of telework introduction include "raising the efficiency (productivity) of business processes," "improving workers' work-life balance" and "reducing workers' travel times."



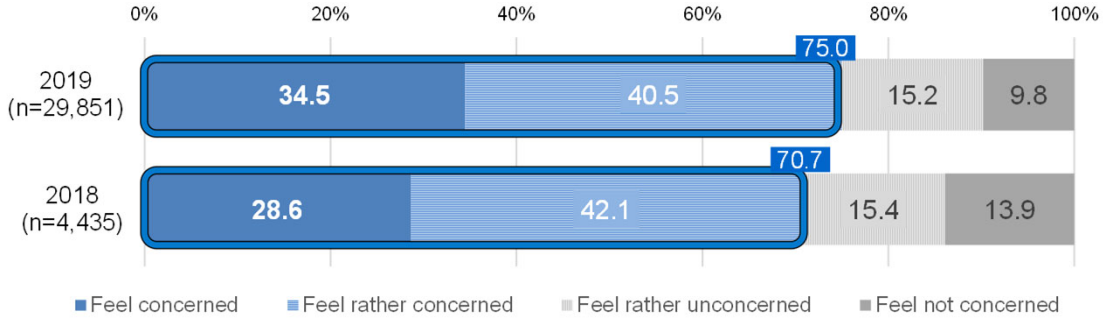
Note: as a percentage of businesses which have introduced telework

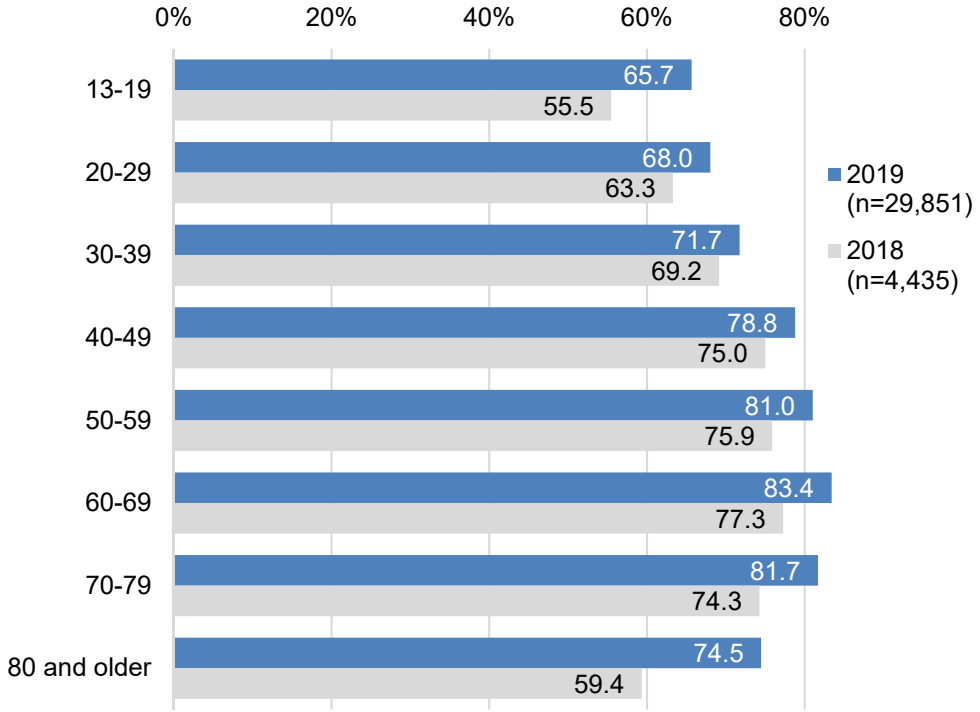
7. Concerns about Using the Internet (individuals)

This item was covered only by the detailed questionnaire in the 2018 survey.

Concerns about using the internet

75% of internet users feel insecure during internet use, rising by 4.3 points from the previous survey.
The share for internet users feeling insecure during internet use is high among those aged 40 or more.

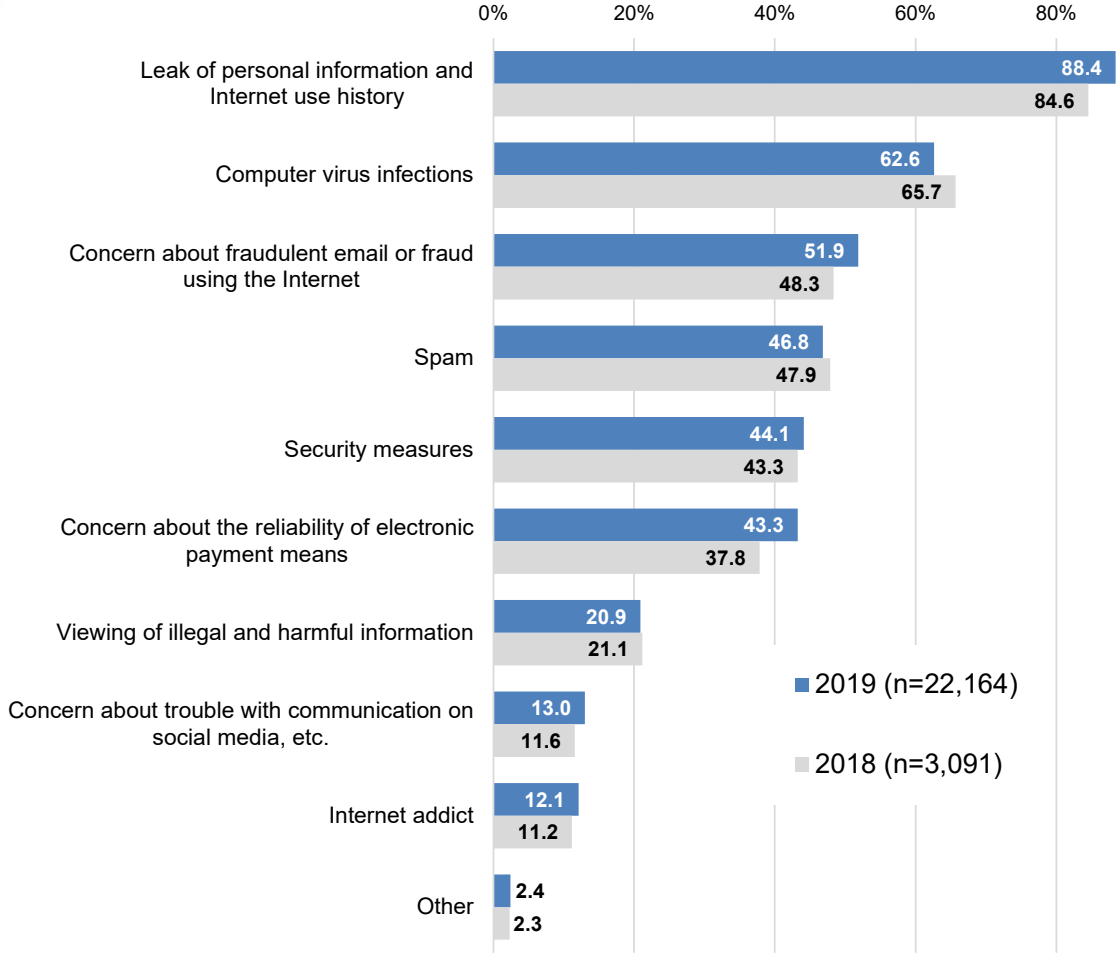




Note: Percentage of internet users who “feel concerned” and “feel rather concerned”
The target age group of 13-19 years old was 12-19 years old in the 2018 survey.

Types of concerns about using the internet

The percentage is as high as 88.4% for “leak of personal information and internet use history” among types of concerns about using the internet. Particularly, the percentage for “concern about the reliability of electronic payment means” posts a rise of 5.5 points to 43.3%.



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

Released May 29, 2020

Attachment 2

Summary Findings of the 2019 Communications Usage Trend Survey

Table of Contents

<Notes>

- **Data in this document exclude non-respondents in the survey (unless otherwise specified).**
- **The 2016-2018 surveys used simple and detailed questionnaires to cover households and their members.**

1. Proliferation of the Internet and Other Networks

(1) Internet usage (individuals)

The internet user share is rising. Particularly, internet usage is increasing among people aged between 6 and 12, and 60 or more.

Figure 1-1: Transitions in internet usage

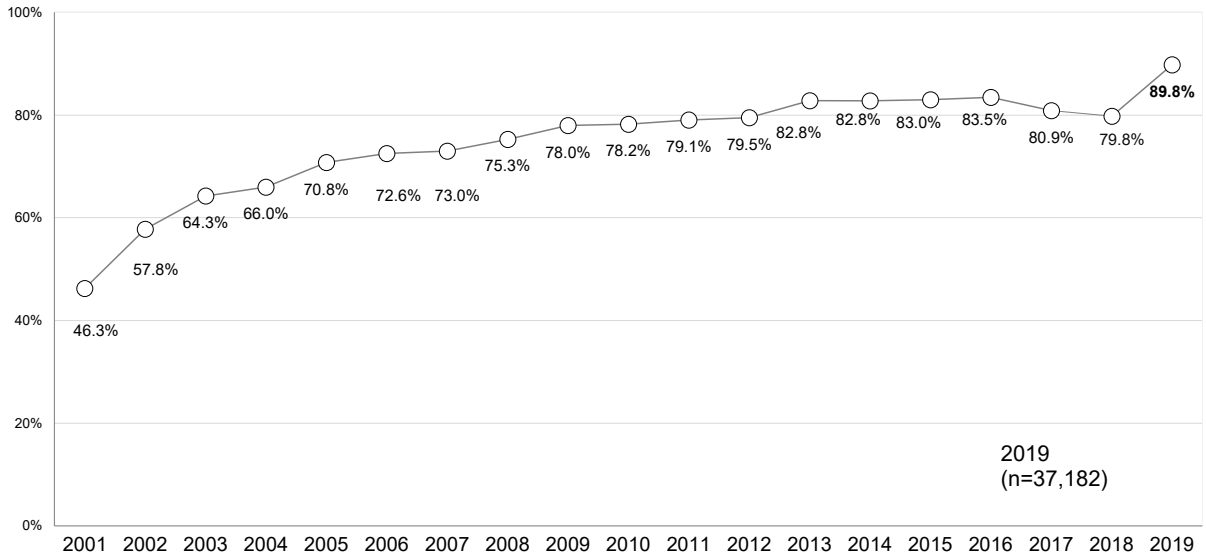
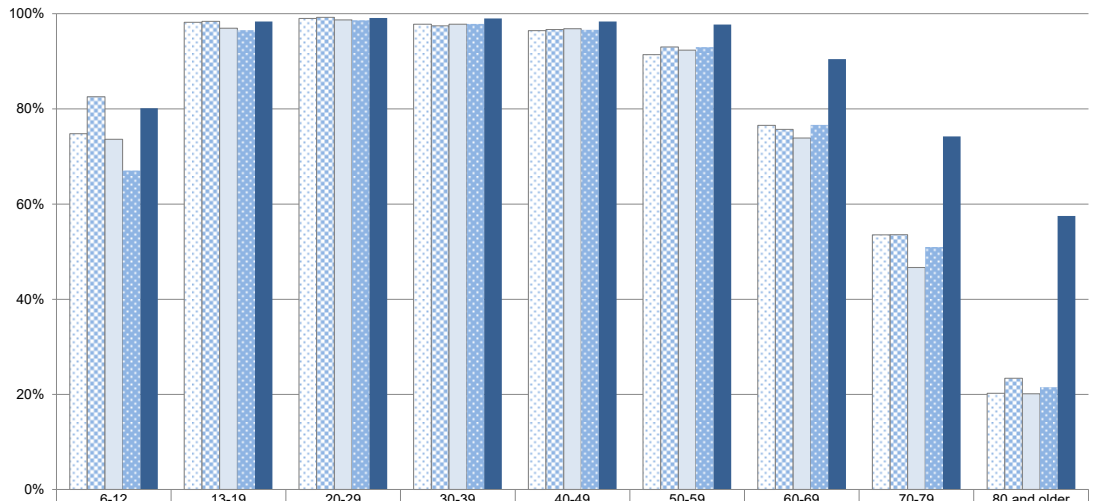


Figure 1-2: Transitions in internet usage by age group



	6-12	13-19	20-29	30-39	40-49	50-59	60-69	70-79	80 and older
2015 (n=33,525)	74.8	98.2	99.0	97.8	96.5	91.4	76.6	53.5	20.2
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

Figure 1-3: Internet usage by age and gender (2019)

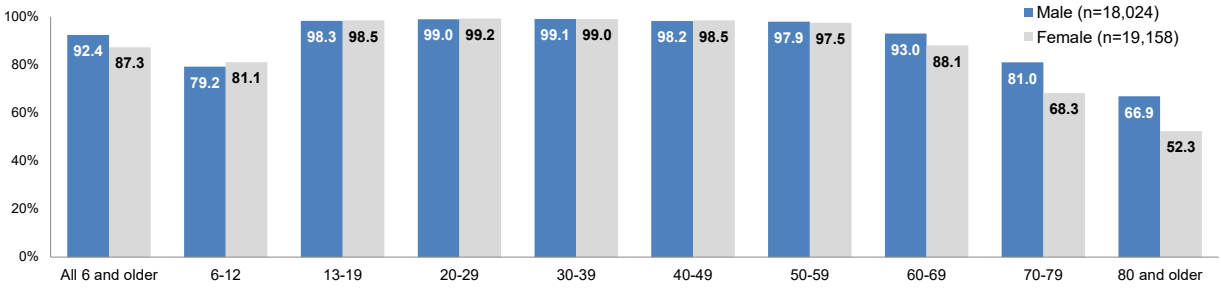
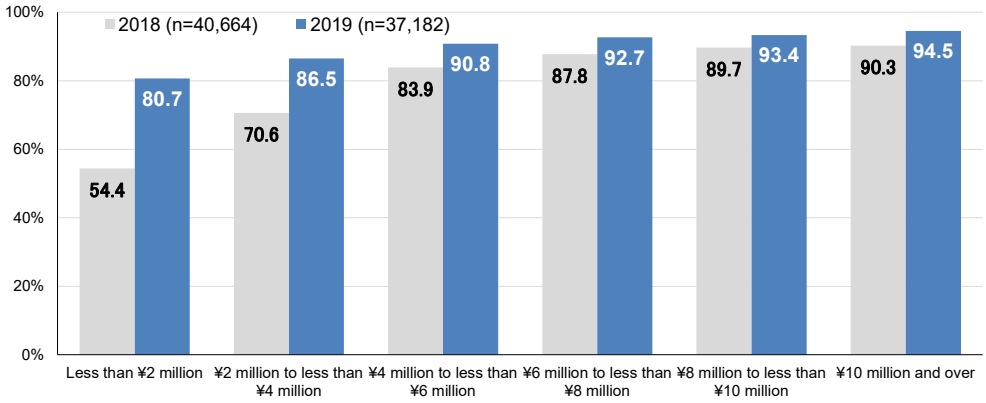


Figure 1-4: Internet usage by annual household income



(2) Internet usage by device (individuals)

The internet usage by device indicates that the percentage of those using smartphones for internet access is 12.9 points higher than that of those using computer. By age group, the smartphone usage rate is higher than 70% in the age groups between 13 and 59 years old.

Figure 1-5: Internet usage by device

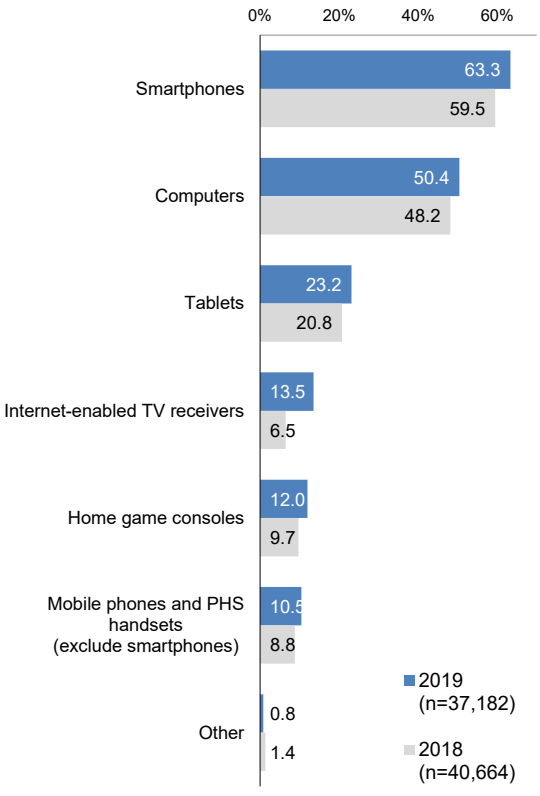
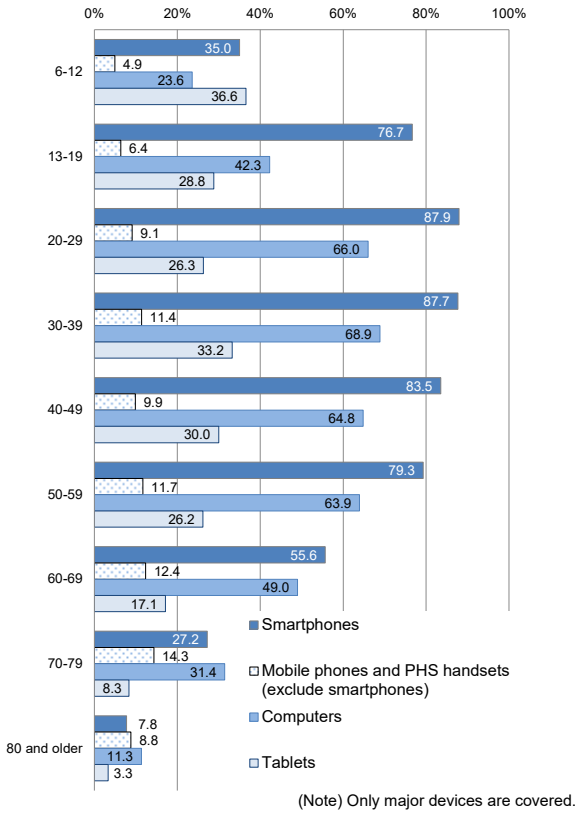


Figure 1-6: Use of internet devices by age group



(Note) Only major devices are covered.

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

The internet usage by prefecture indicates that Tokyo posts the highest internet usage rate, followed by Osaka and Kanagawa in that order (see the colored parts in Figure 1-7).

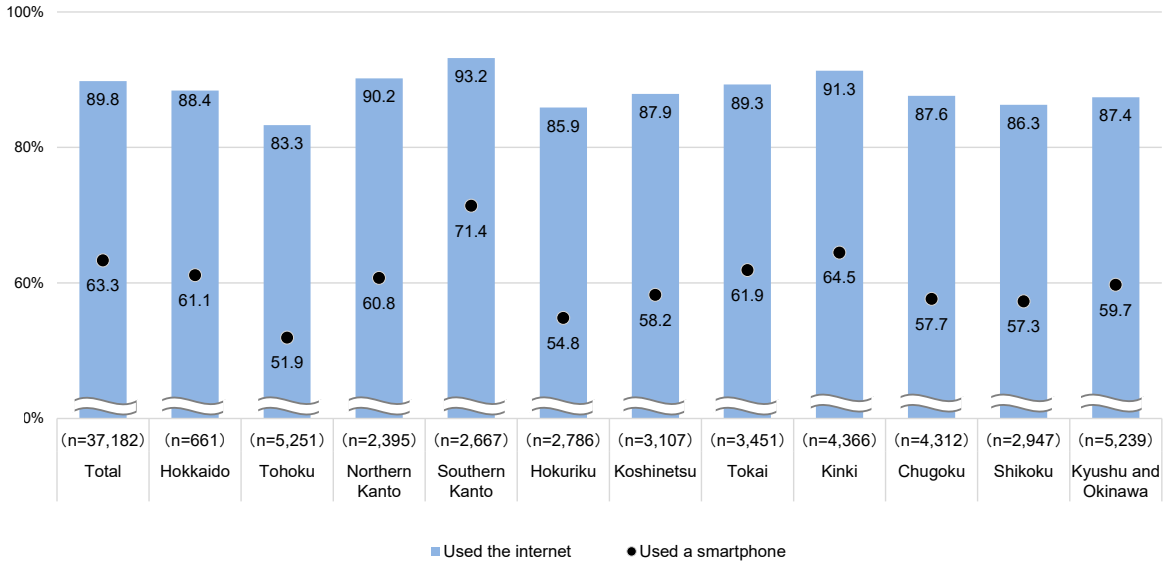
By region, the internet usage rate in southern Kanto, Kinki and northern Kanto is higher than the national average rate.

Figure 1-7: Internet usage by prefecture and device (2019)

(%)

Prefecture (n)		Percentage of internet users				
		Total	Computers	Mobile phones (incl. PHS)	Smartphones	Tablets
Hokkaido	(661)	88.4	48.8	10.2	61.1	20.4
Aomori	(778)	80.0	37.0	8.2	45.5	17.0
Iwate	(803)	85.9	32.2	7.0	52.1	15.1
Miyagi	(769)	86.2	38.4	9.8	54.7	15.9
Akita	(933)	82.8	39.5	8.8	47.7	17.7
Yamagata	(1,068)	81.0	39.6	11.0	52.7	13.7
Fukushima	(900)	81.8	40.3	11.2	54.4	14.2
Ibaraki	(696)	91.6	49.4	11.0	60.7	22.3
Tochigi	(849)	87.7	47.3	10.9	58.9	23.7
Gunma	(850)	90.8	49.4	12.3	62.7	20.5
Saitama	(691)	90.8	54.9	9.8	71.4	25.8
Chiba	(727)	91.5	59.3	10.9	68.3	24.6
Tokyo	(622)	95.7	65.1	10.4	74.5	33.2
Kanagawa	(627)	92.7	56.7	9.7	68.7	28.2
Niigata	(935)	84.0	40.6	8.9	52.5	14.8
Toyama	(1,111)	87.0	48.8	10.6	59.0	19.5
Ishikawa	(1,105)	88.3	46.6	9.8	57.1	17.8
Fukui	(891)	88.7	44.4	9.0	58.8	19.4
Yamanashi	(906)	87.7	41.2	7.7	59.2	18.7
Nagano	(945)	87.2	44.1	9.3	55.6	17.3
Gifu	(959)	85.3	43.6	10.8	57.9	18.4
Shizuoka	(1,047)	87.4	47.7	9.9	58.2	18.7
Aichi	(651)	91.3	51.5	12.3	64.6	21.1
Mie	(794)	89.7	43.0	7.8	62.7	21.7
Shiga	(747)	90.8	51.4	13.1	66.9	21.8
Kyoto	(733)	91.7	57.2	11.7	68.3	25.7
Osaka	(669)	93.3	54.2	15.0	66.7	28.1
Hyogo	(793)	88.8	49.1	10.6	59.5	19.3
Nara	(760)	89.3	54.7	12.2	65.3	19.1
Wakayama	(664)	87.6	48.2	10.0	56.7	19.1
Tottori	(860)	86.1	46.2	9.0	59.7	20.2
Shimane	(1,049)	84.9	42.5	8.3	54.4	20.5
Okayama	(816)	90.6	45.4	9.2	58.0	21.9
Hiroshima	(820)	87.8	46.2	11.9	59.6	22.7
Yamaguchi	(767)	84.9	36.6	8.8	54.1	14.3
Tokushima	(698)	87.1	43.5	9.9	56.4	17.6
Kagawa	(926)	88.3	48.3	11.5	60.5	19.2
Ehime	(696)	84.9	37.5	8.2	58.4	16.3
Kochi	(627)	85.6	41.9	9.0	51.7	17.4
Fukuoka	(572)	88.4	49.0	7.9	65.6	25.0
Saga	(931)	84.6	39.1	10.3	52.1	18.0
Nagasaki	(706)	84.7	34.4	10.3	51.8	17.4
Kumamoto	(744)	87.7	40.3	9.1	54.9	19.0
Oita	(659)	89.0	42.6	10.1	61.4	23.9
Miyazaki	(616)	85.4	32.8	8.1	53.4	14.9
Kagoshima	(587)	85.1	34.9	7.4	53.8	19.1
Okinawa	(424)	90.1	43.9	8.0	66.4	27.1
Total	(37,182)	89.8	50.4	10.5	63.3	23.2

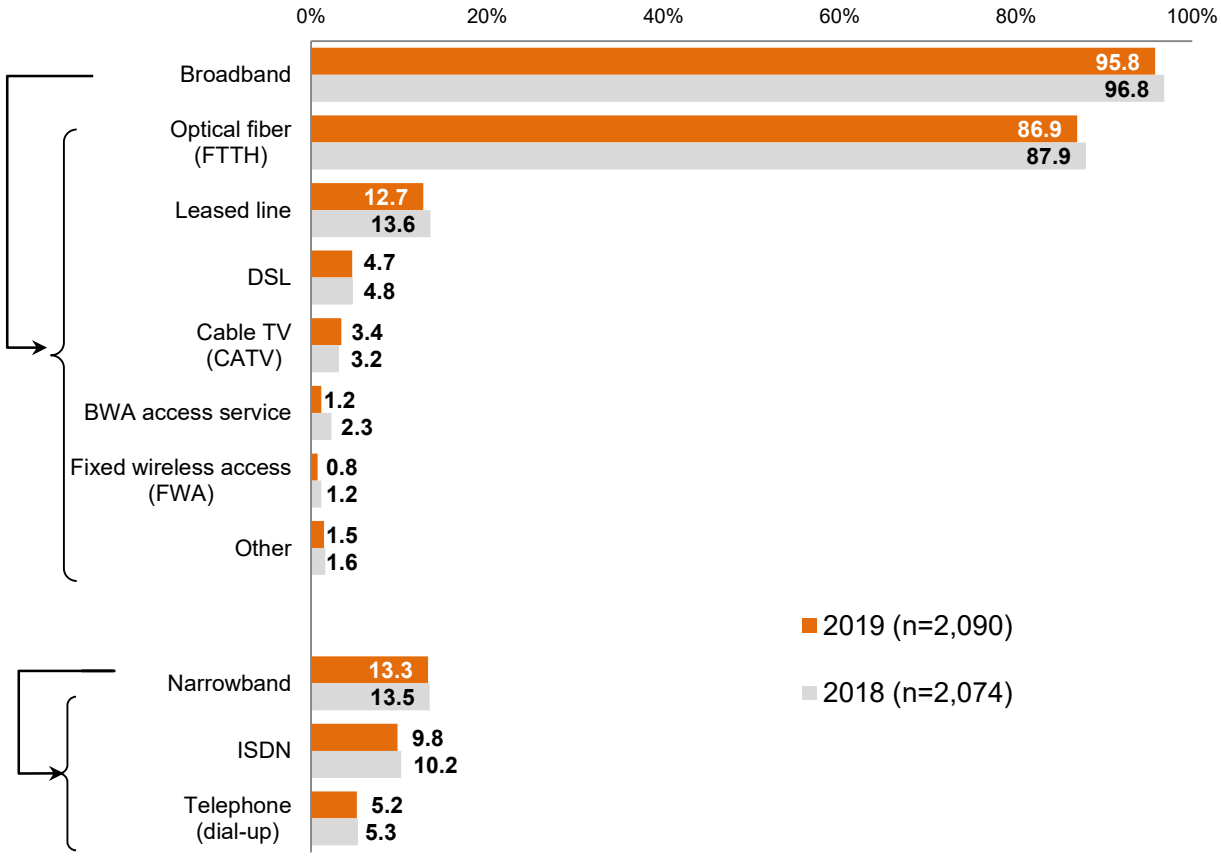
Figure 1-8: Internet and smartphone usage by region (2019)



(4) Types of internet connections (businesses)

Of the surveyed businesses, 96.8% use a broadband connection to access the internet from their premises. Of businesses using a broadband connection, 86.9% use an optical fiber connection.

Figure 1-9: Internet connection types (multiple responses accepted)

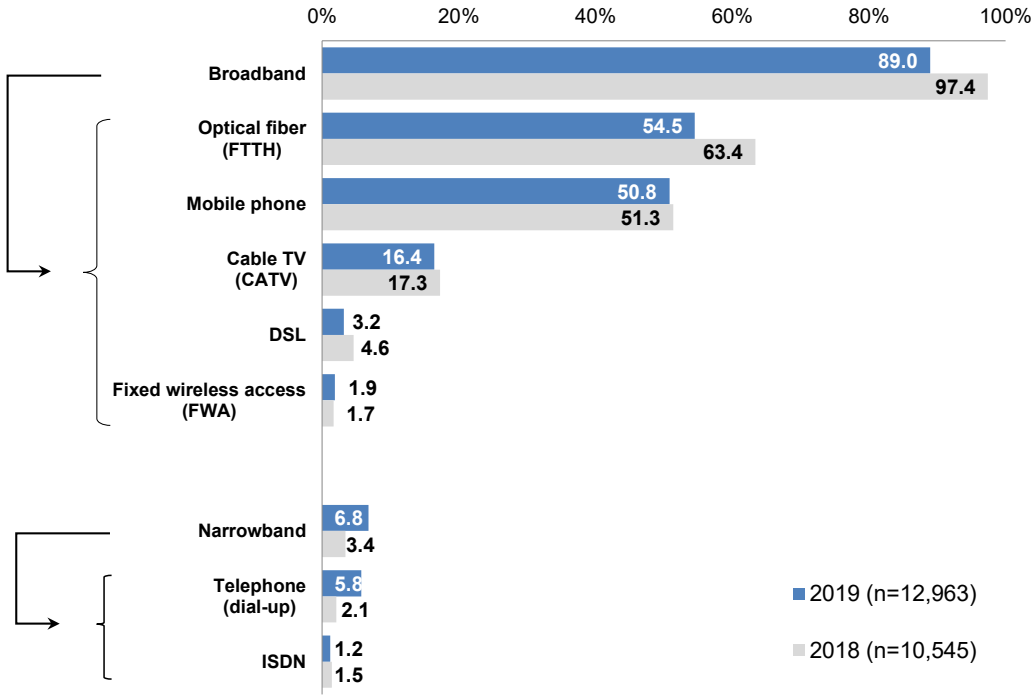


Note: as a percentage of businesses using the Internet

(5) Types of internet connections (households)

Of households using a broadband connection to access the internet from computers, tablets and other devices at home, 89.0% use a broadband connection.

Figure 1-10: Types of internet connections for computers at home and other devices (multiple responses)

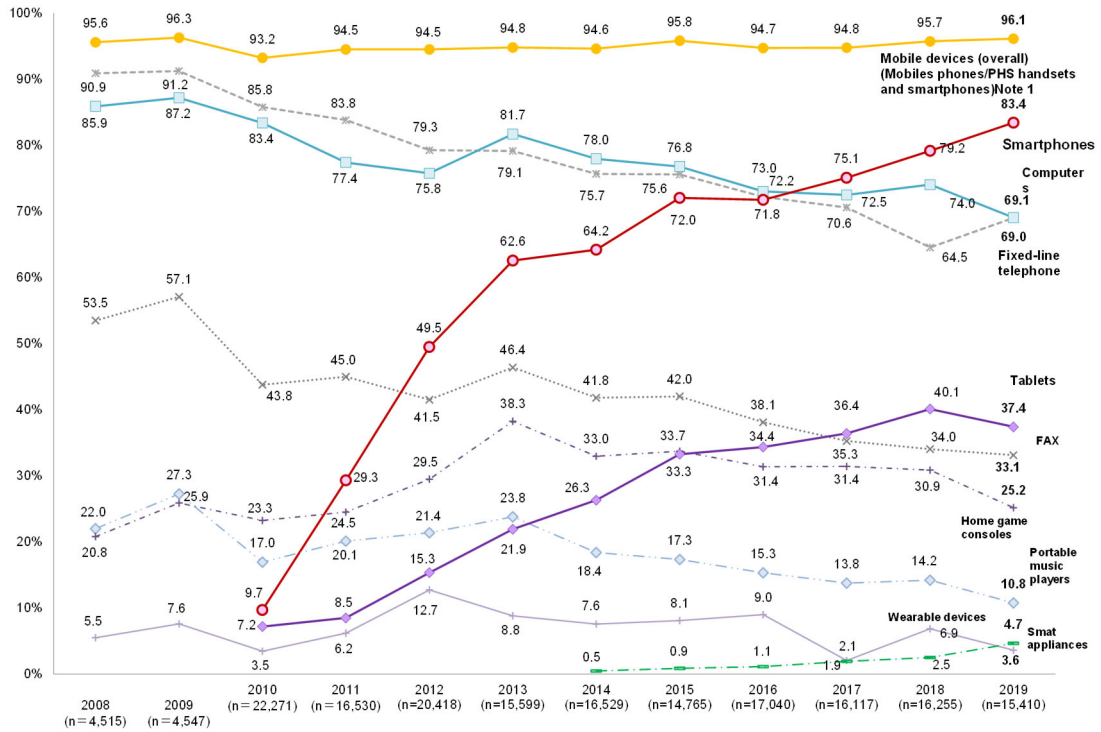


Note: as a percentage of households accessing the Internet from computers at home and other devices.

(6) Ownership of communication devices (households)

Ownership rises to 83.4% for smartphones among communication devices.

Figure 1-11: 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.

(7) Ownership of mobile devices (individuals)

Regarding the ownership of mobile devices by individuals, the ownership rate for “smartphones” is 67.6%, 43.5 points higher than the ownership rate for “mobile phones/PHS handsets” (24.1%).

By age group, the ownership rate for “smartphones” is higher than the ownership rate for “mobile phones/PHS handsets” in the age groups between 6 and 69 years old.

Figure 1-12: Transitions in ownership of mobile devices

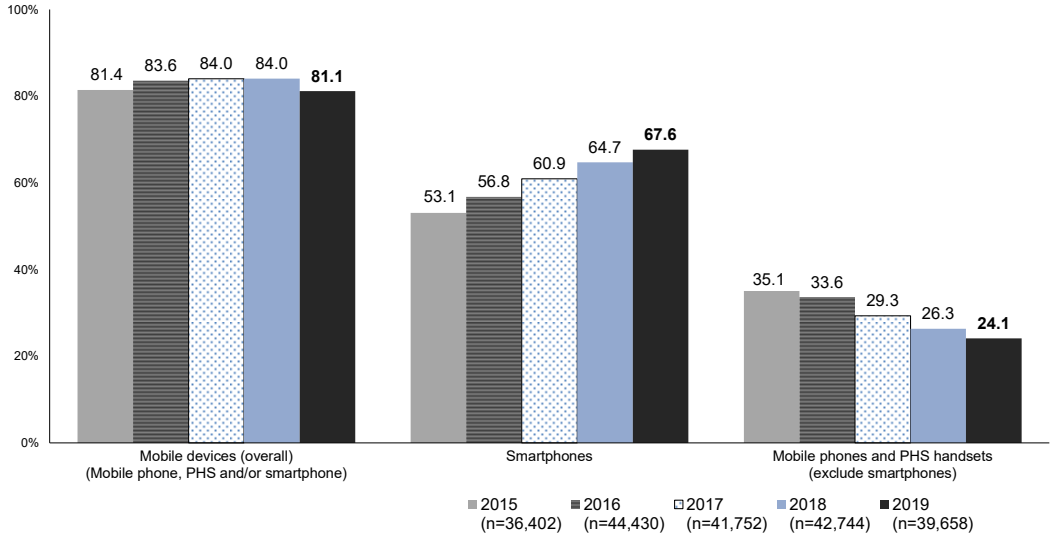
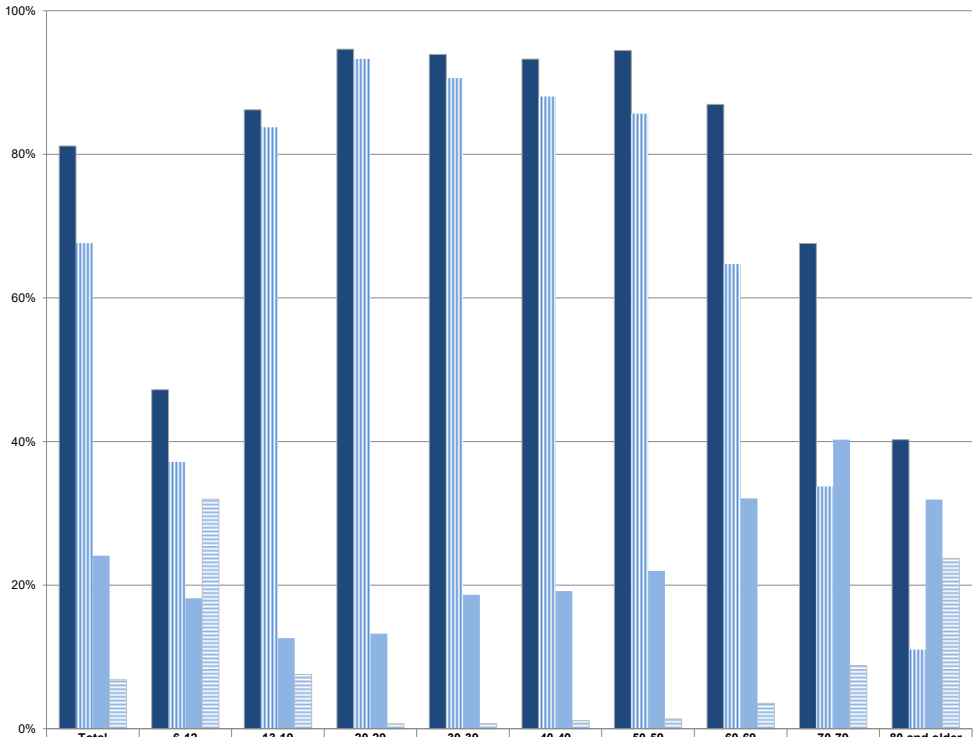


Figure 1-13: Ownership of mobile devices by age group (2019)

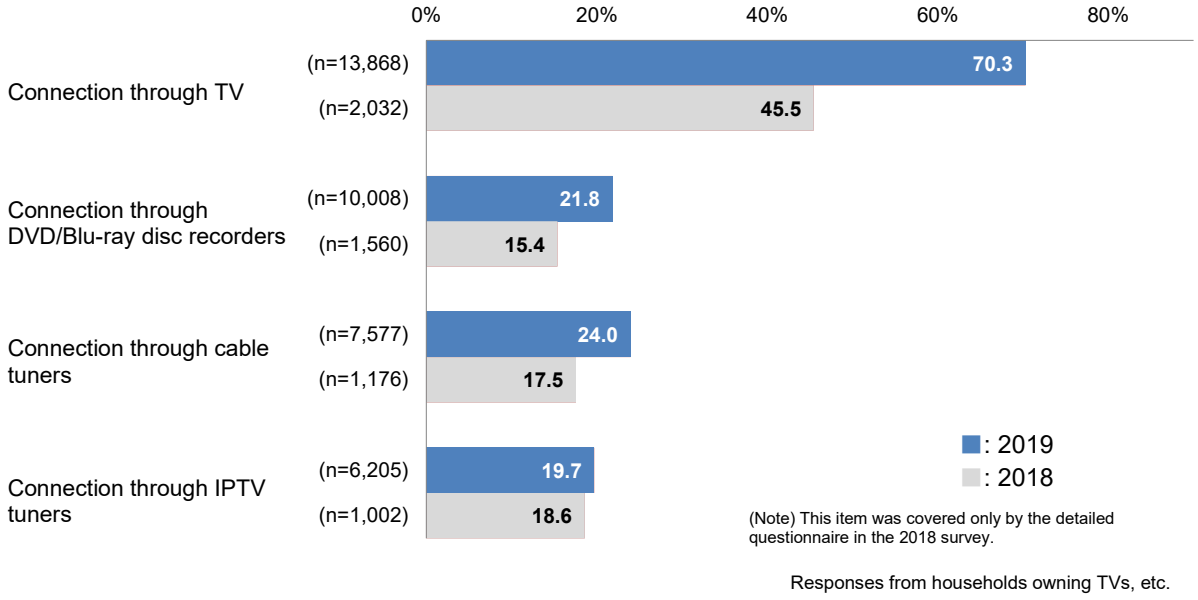


	Total (n=39,658)	6-12 (n=2,145)	13-19 (n=2,291)	20-29 (n=3,028)	30-39 (n=4,067)	40-49 (n=5,440)	50-59 (n=5,672)	60-69 (n=7,192)	70-79 (n=6,299)	80 and older (n=3,524)
Mobile devices (overall)(Mobile phone, PHS and/or smartphone)	81.1	47.2	86.2	94.6	93.9	93.3	94.5	86.9	67.6	40.3
Smartphones	67.6	37.2	83.8	93.3	90.6	88.0	85.6	64.7	33.8	11.0
Mobile phones and PHS handsets (exclude smartphones)	24.1	18.2	12.6	13.2	18.7	19.2	22.0	32.1	40.3	31.9
Not owning	6.8	32.0	7.6	0.7	0.7	1.2	1.4	3.6	8.8	23.7

(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 70.3%, followed by 24.0% for those using a connection through cable TV.

Figure 1-14 Internet connection through TV, etc. (multiple responses accepted) (2019)



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 76.8%. This is followed by “information search” (75.6%) and “using social networking services” (69.0%).

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 video posting/sharing sites.”

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

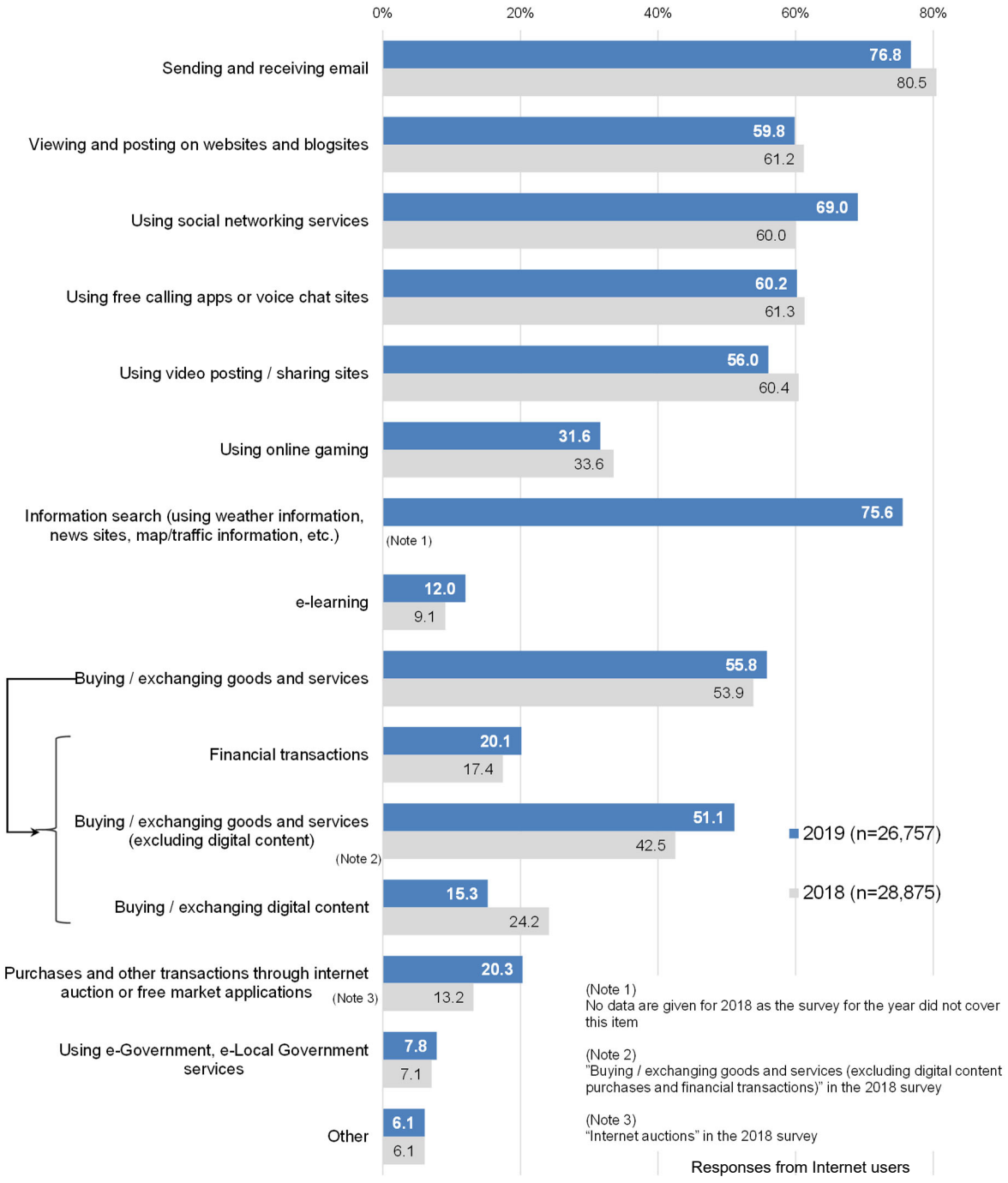
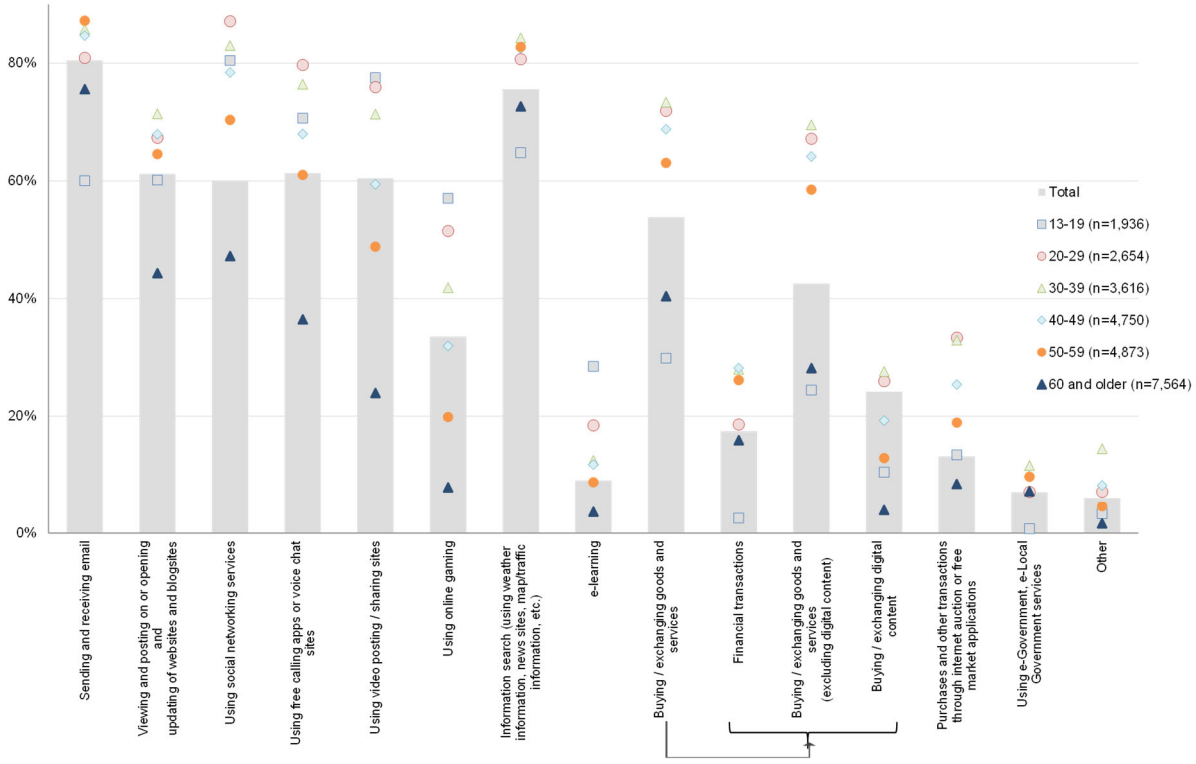


Figure 2-2: Purposes of using the internet by age group (multiple responses accepted) (2019)



(2) Social networking service usage (individuals)

Of internet users, 69.0% use social networking services, up 0.9 points from the previous year.

Among purposes of SNS usage, “to communicate with current friends” (86.9%) is the most frequently cited. The percentage of “to find information on topics of interest” stands at 63.6%, up 6.2 points from the previous survey.

Figure 2-3: Social networking service usage

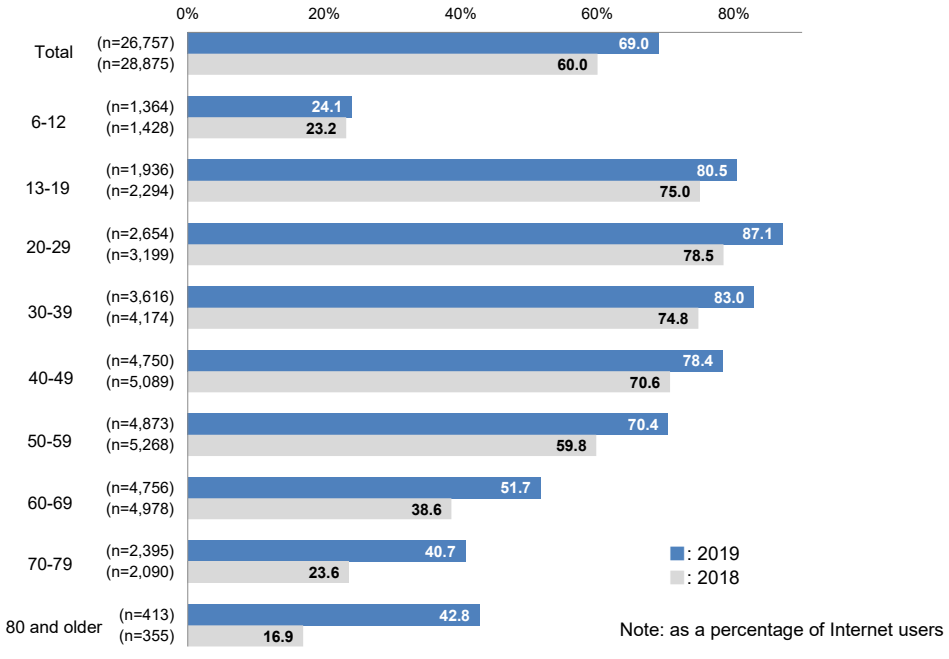
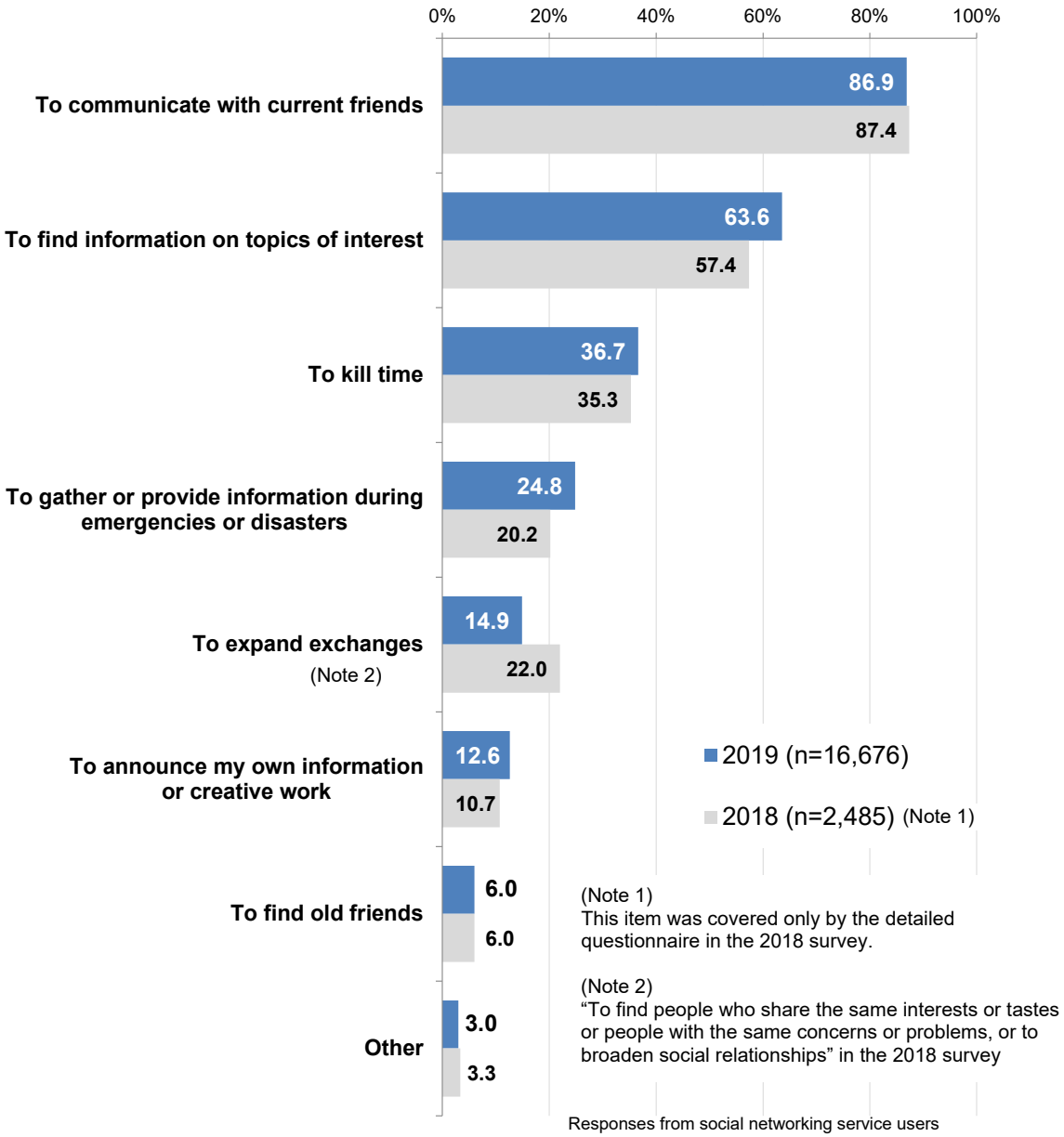


Figure 2-4: Purposes of social networking service usage (multiple responses accepted)



3. Current ICT Usage by Businesses

(1) Cloud computing service usage (businesses)

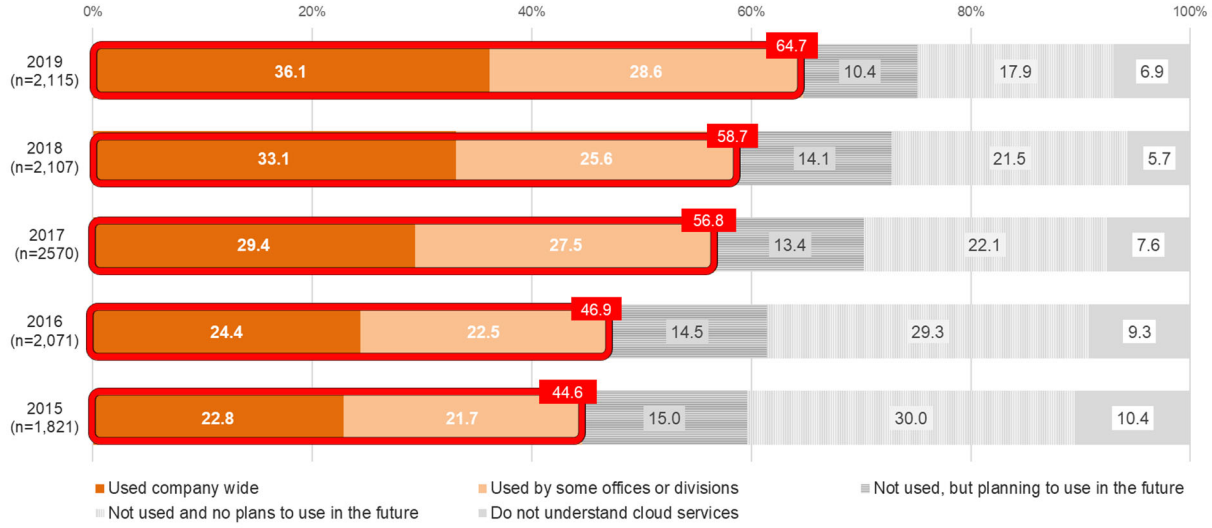
The share for businesses using at least some cloud computing services (hereafter referred to as “cloud services”) rises to 64.7%.

The most frequently cited among cloud services is “file storage and data sharing” (56.0%), followed by “e-mail” (48.0%) and “Information sharing / portal” (43.0%). Users of advanced services such as “sales support” and “production management” are limited.

Reasons for using cloud services include “No need to have internal asset and storage systems” (45.9%) and “the same services are available irrespective of location or equipment” (43.3%).

As for the effects of the use of cloud services, 85.5% recognized either “very beneficial” or “somewhat beneficial” effects.

Figure 3-1: 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 3-2: Cloud service usage by industry and capitalization

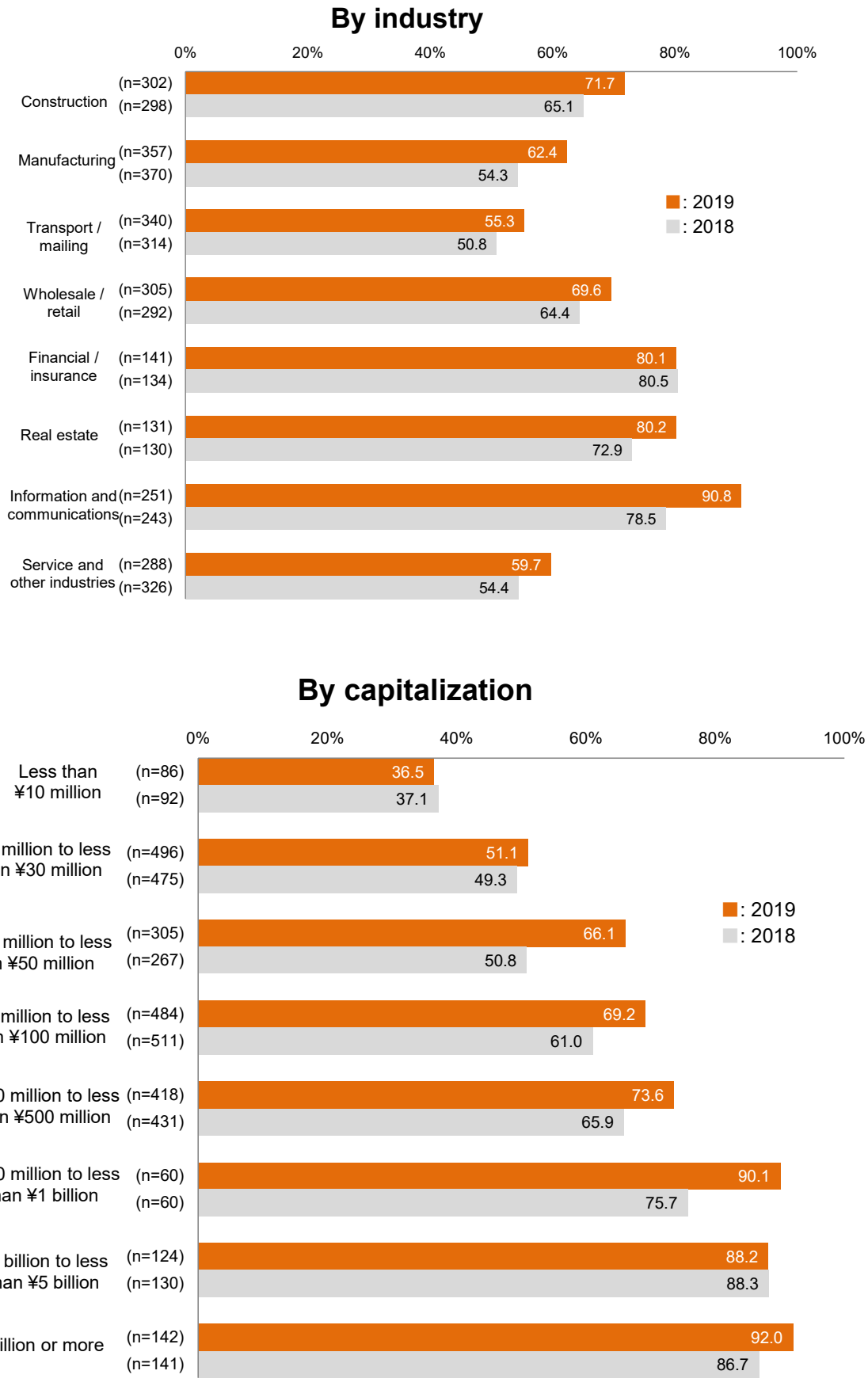


Figure 3-3: Cloud services used by businesses (multiple responses accepted)

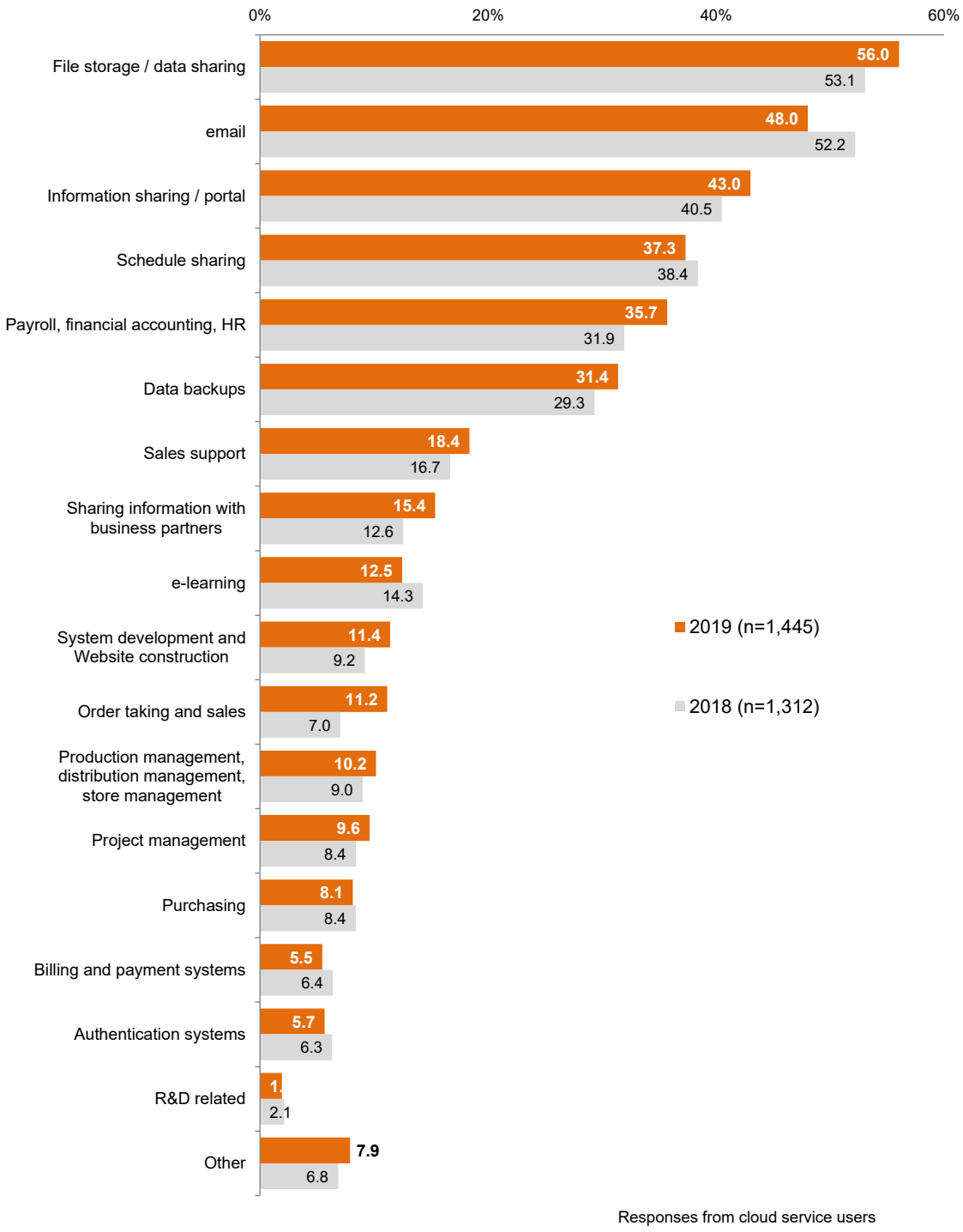


Figure 3-4: Reasons for using cloud services (multiple responses accepted)

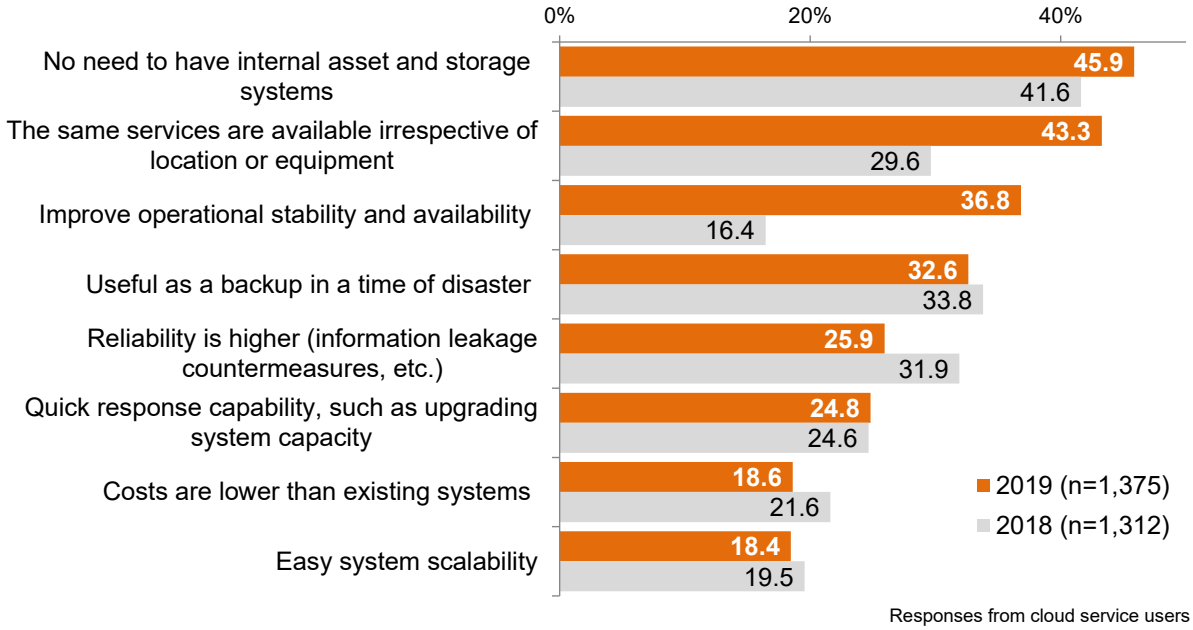
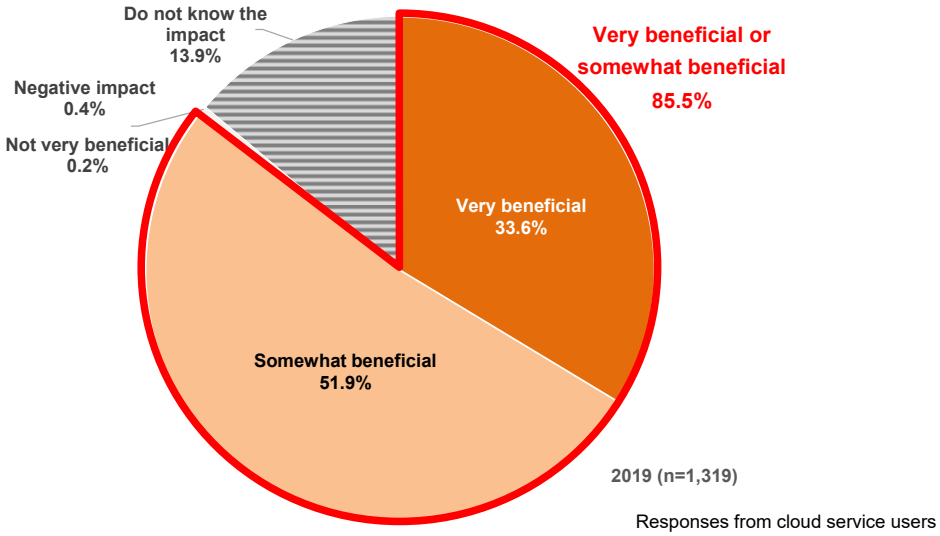


Figure 3-5: Impact of cloud computing services (2019)



(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 14.1% of respondents. The percentage of those that have done so and are planning to do so is 23.9%.

Among purposes of digital data collection/analysis with IoT/AI systems, “improvement of business efficiency/operations” is the most frequently cited (83.5%), followed by “improvement of customer services” (34.0%) and “overall optimization of business operations” (25.0%).

Those saying that the introduction of IoT and AI systems or services has been “very effective” or “somewhat effective” account for 79.8% of respondents.

The most frequently cited among components of IoT and AI systems or services that have been introduced are “surveillance cameras” (30.4%), followed by “physical security devices” (28.2%) and “sensors” (24.6%).

Figure 3-6: Introduction of IoT and AI systems or services

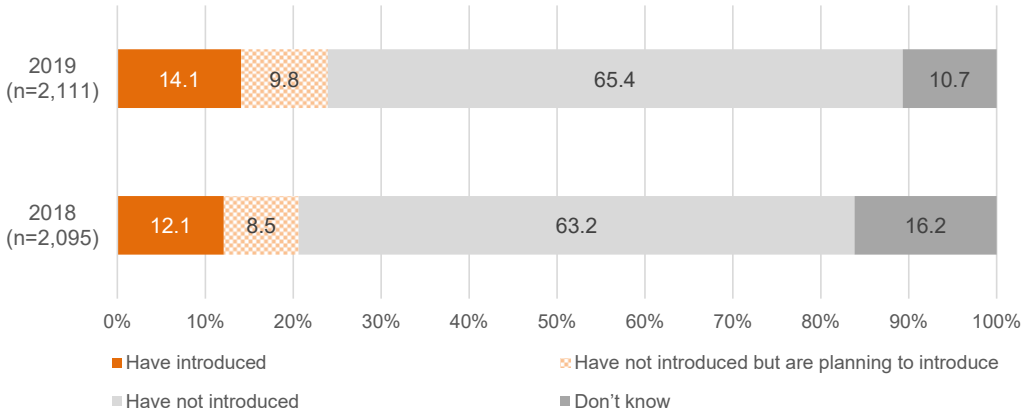


Figure 3-7: Purposes of digital data collection/analysis (multiple answers accepted) (2019)

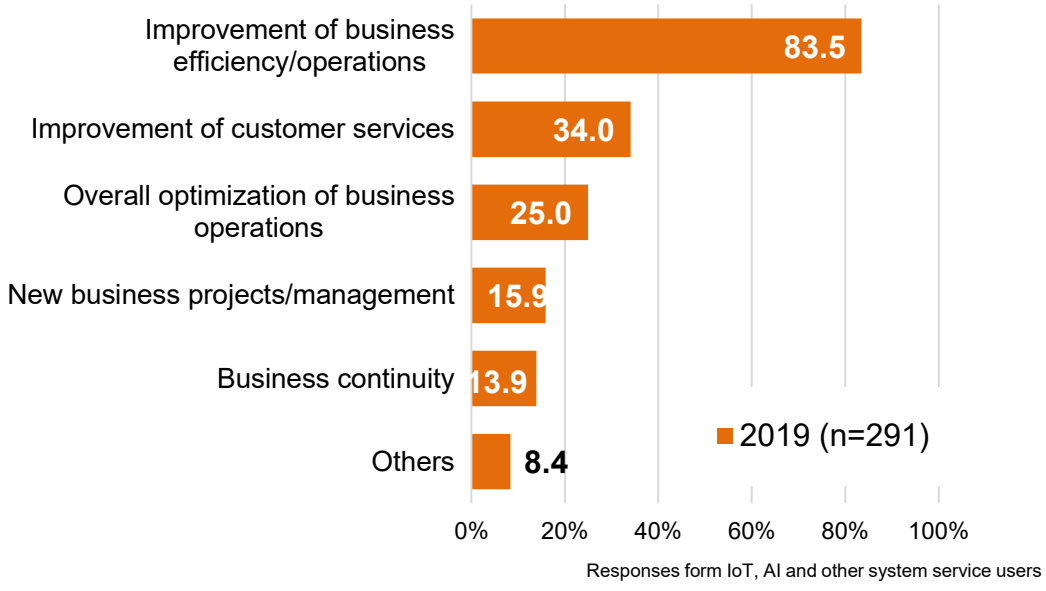
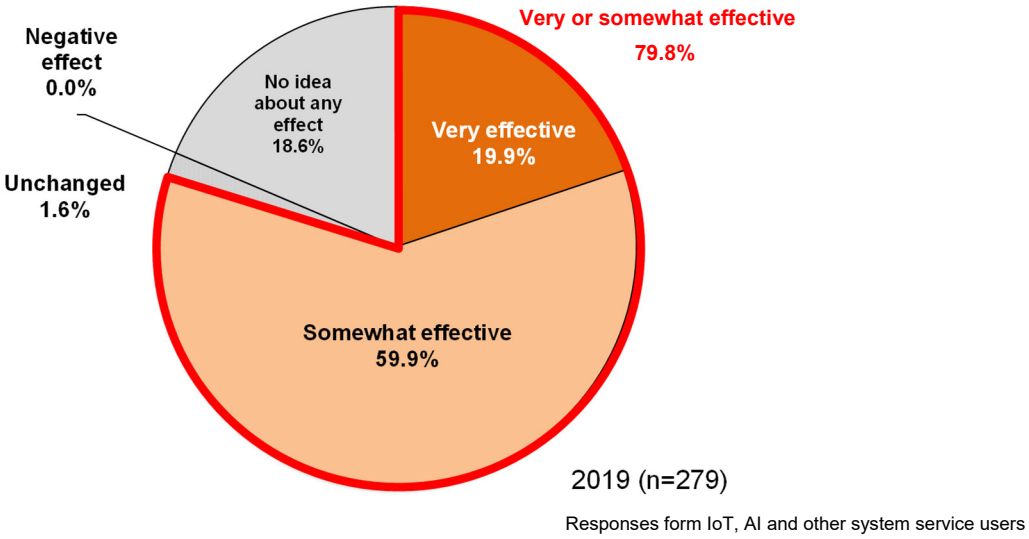
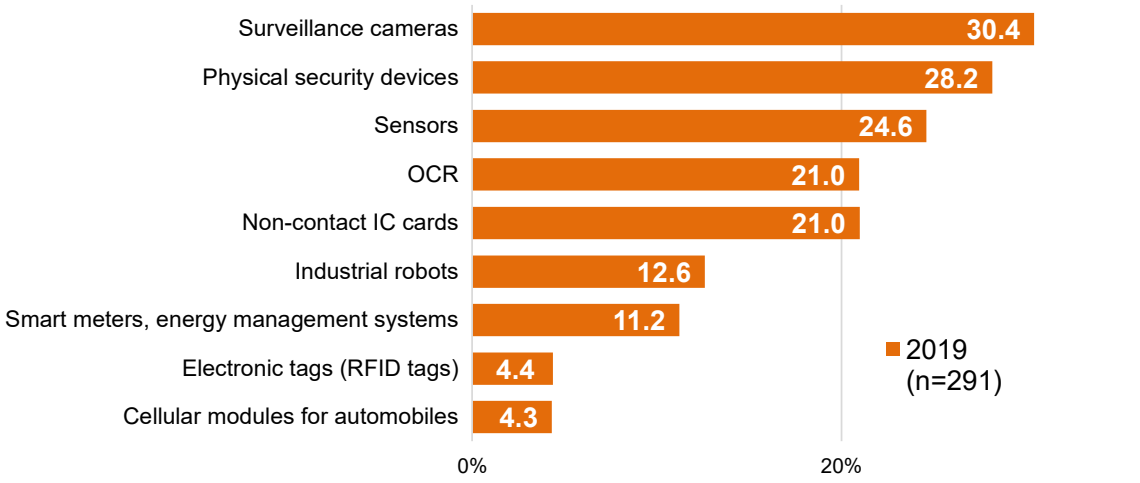


Figure 3-8: Effects of IoT/AI system/service introduction (2019)



Responses form IoT, AI and other system service users

Figure 3-9: Components of AI/IoT systems/services (multiple answers accepted) (2019)



Responses form IoT, AI and other system service users

4. Introduction and Implementation of Telework

(1) Introduction of telework (businesses)

Of the surveyed businesses, 20.2% have introduced telework.

Among types of telework that have been introduced, “mobile work” is the most frequently cited (63.2%).

“Information and communications” and “financial and insurance” industries post higher telework introduction rates than other industries.

Businesses capitalized at 5 billion yen or more post high growth in their telework introduction rates of up to 64.3%.

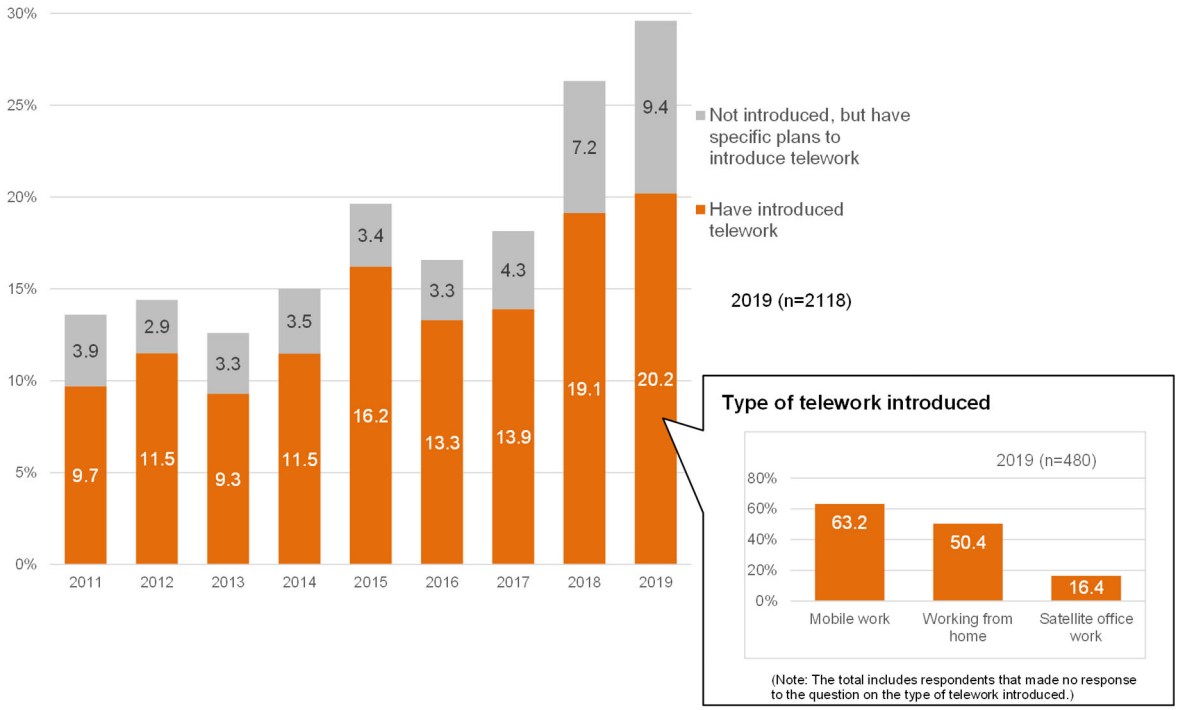
The most common percentage of telework employees is “less than 5%” cited by 47.6% of responding businesses.

The highest ranked purpose for introducing telework is to “raise efficiency (productivity) of business processes,” cited by 68.3%. This was followed by to “improve workers’ work-life balance” (46.9%) and to “shorten workers’ traveling time and avoid congestion” (46.8%).

Concerning the intended effects of telework introduction, 87.2% 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, 74.7%, as the reason for not introducing telework.

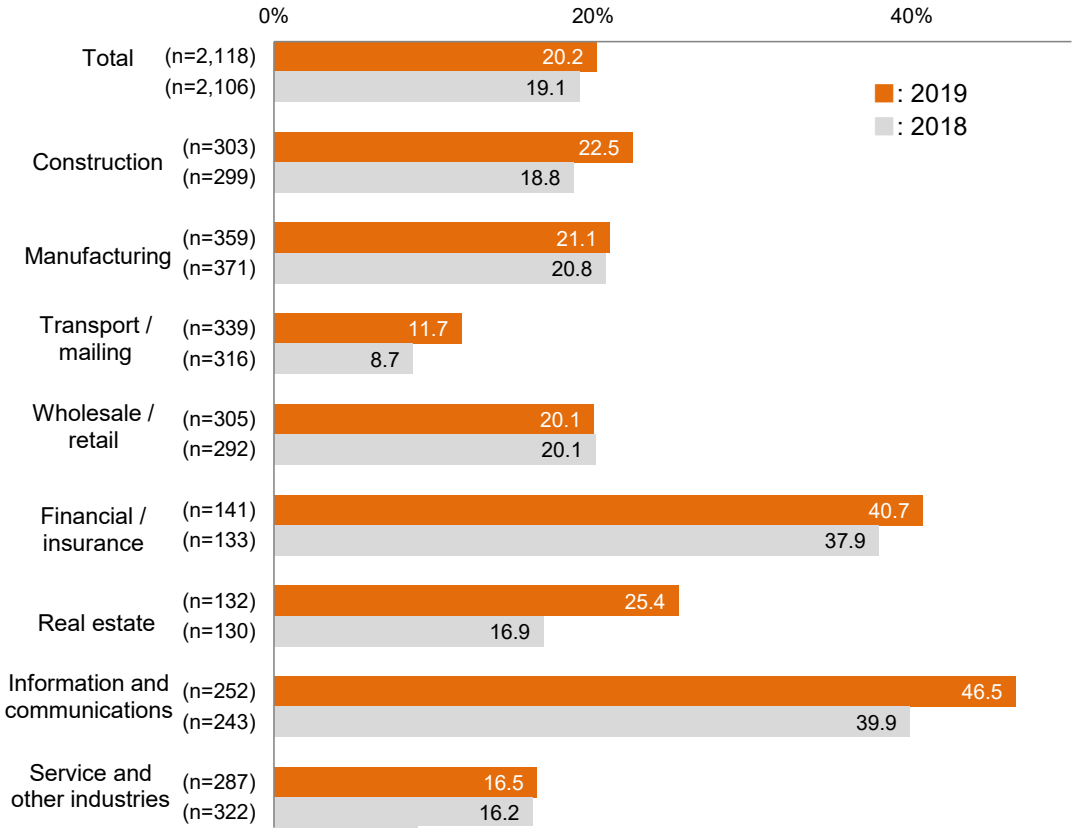
Figure 4-1: Telework introduction



(The survey took place in late September 2019 before the COVID-19 pandemic.)

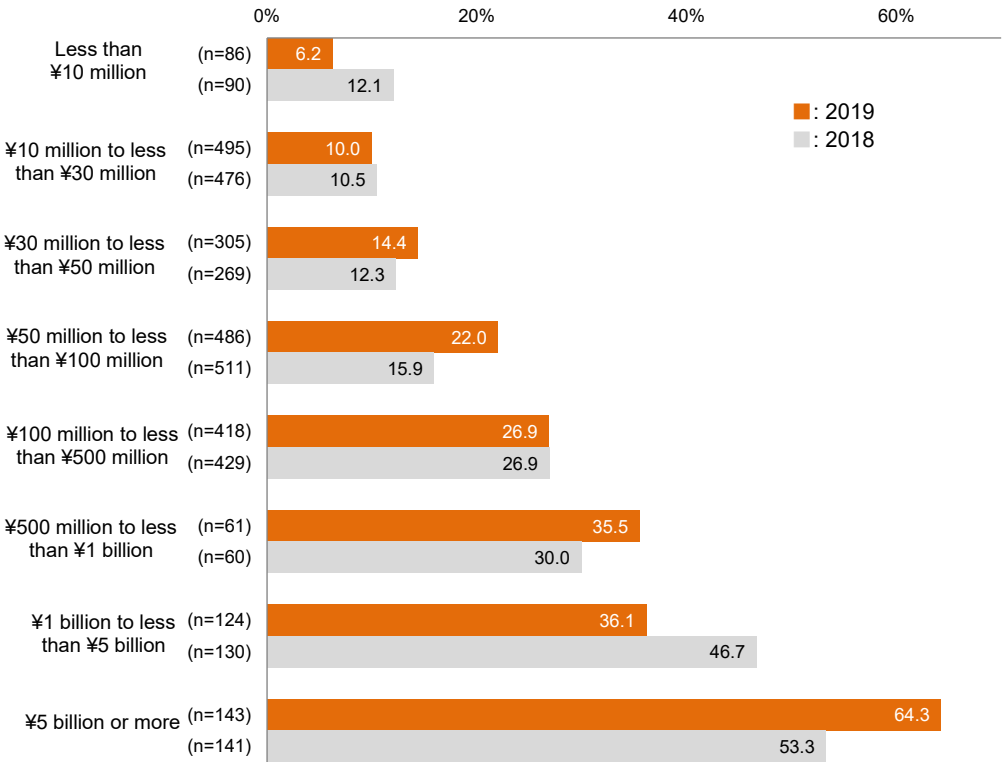
Figure 4-2: Telework introduction by industry and capitalization

By industry



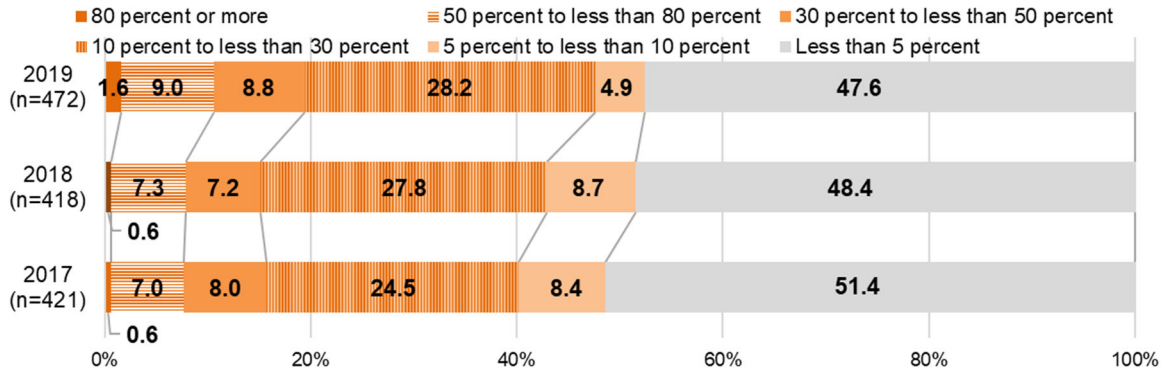
(The survey took place in late September 2019 before the COVID-19 pandemic.)

By capitalization



(The survey took place in late September 2019 before the COVID-19 pandemic.)

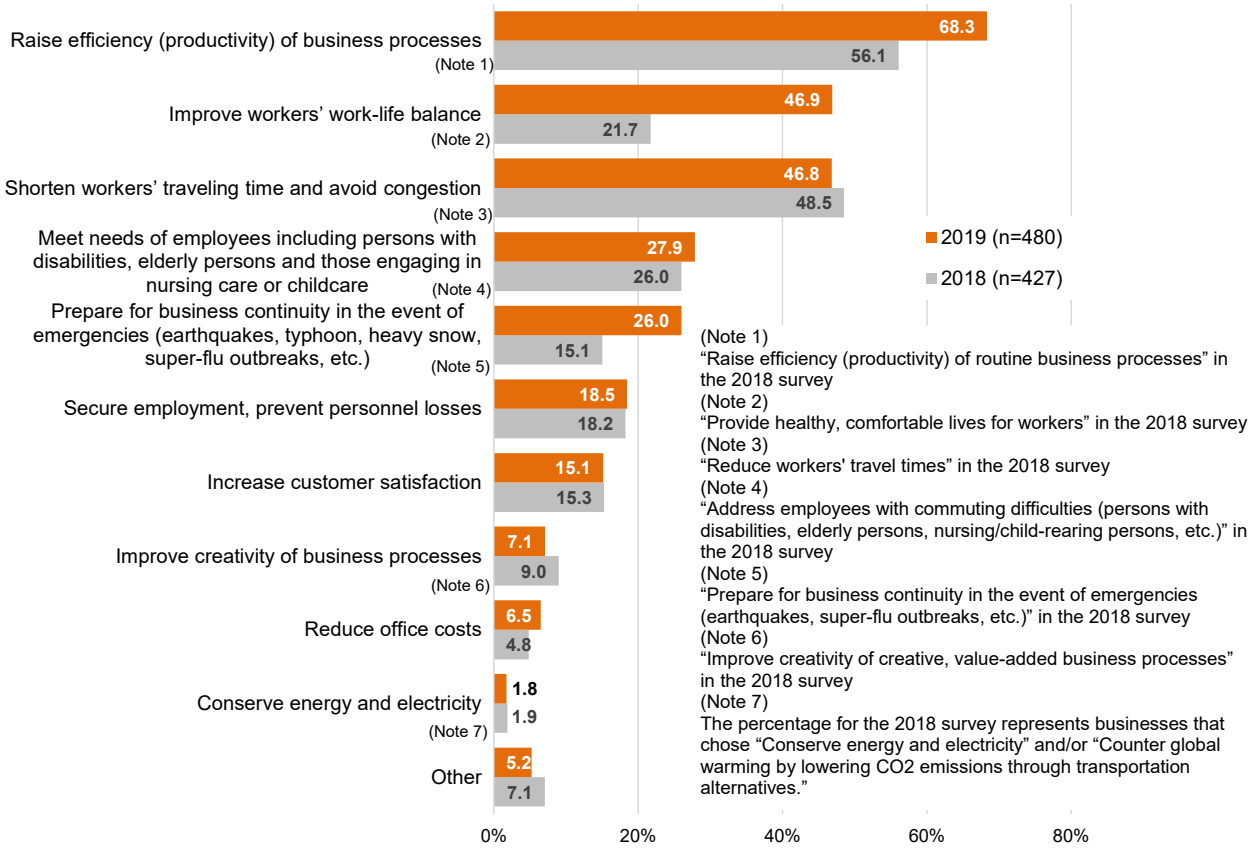
Figure 4-3: Percentage of telework employees



Responses from businesses having introduced telework

(The survey took place in late September 2019 before the COVID-19 pandemic.)

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

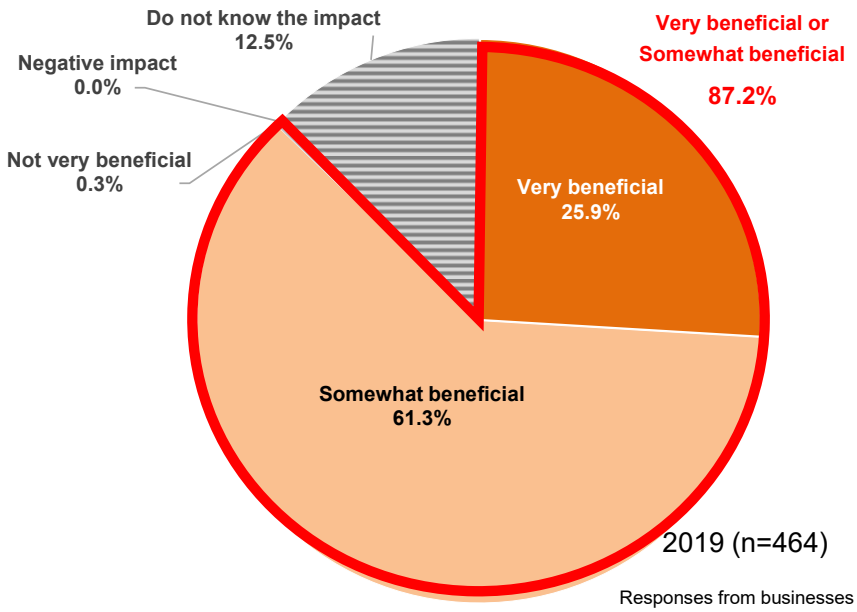


(Note 1)
"Raise efficiency (productivity) of routine business processes" in the 2018 survey
(Note 2)
"Provide healthy, comfortable lives for workers" in the 2018 survey
(Note 3)
"Reduce workers' travel times" in the 2018 survey
(Note 4)
"Address employees with commuting difficulties (persons with disabilities, elderly persons, nursing/child-rearing persons, etc.)" in the 2018 survey
(Note 5)
"Prepare for business continuity in the event of emergencies (earthquakes, super-flu outbreaks, etc.)" in the 2018 survey
(Note 6)
"Improve creativity of creative, value-added business processes" in the 2018 survey
(Note 7)
The percentage for the 2018 survey represents businesses that chose "Conserve energy and electricity" and/or "Counter global warming by lowering CO2 emissions through transportation alternatives."

(The survey took place in late September 2019 before the COVID-19 pandemic.)

Responses from businesses having introduced telework

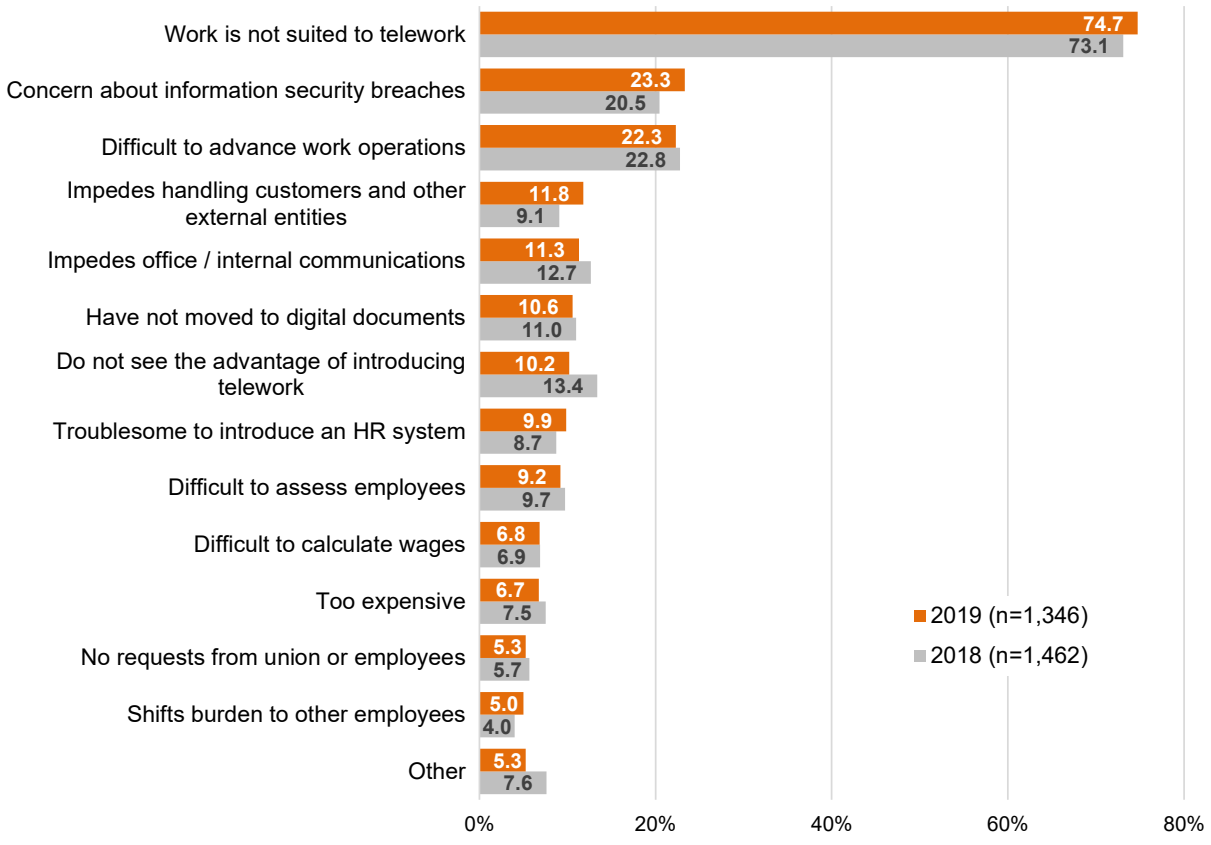
Figure 4-5: Telework benefits (2019)



Responses from businesses having introduced telework

(The survey took place in late September 2019 before the COVID-19 pandemic.)

Figure 4-6: Reasons for not introducing telework (multiple responses accepted)



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

(The survey took place in late September 2019 before the COVID-19 pandemic.)

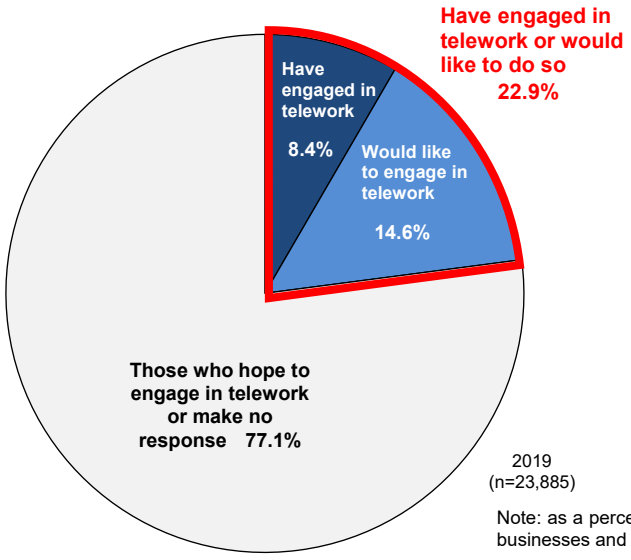
(2) Engagement in telework (individuals)

Of individuals aged 15 or older and working for businesses or other organizations, 8.4% have the experience of engaging in telework. The percentages of respondents citing “working from home” and “out of the office (mobile work)” as telework types in which they have engaged are as high as 68.9% and 62.0%, respectively.

Of individuals who have not engaged in telework, those hoping to engage in telework account for 16.1%.

The most frequently cited reason for failing to engage in telework is that “there is not a telework system at the employer” (41.1%), followed by the reason that “work is not suited to telework” (40.3%).

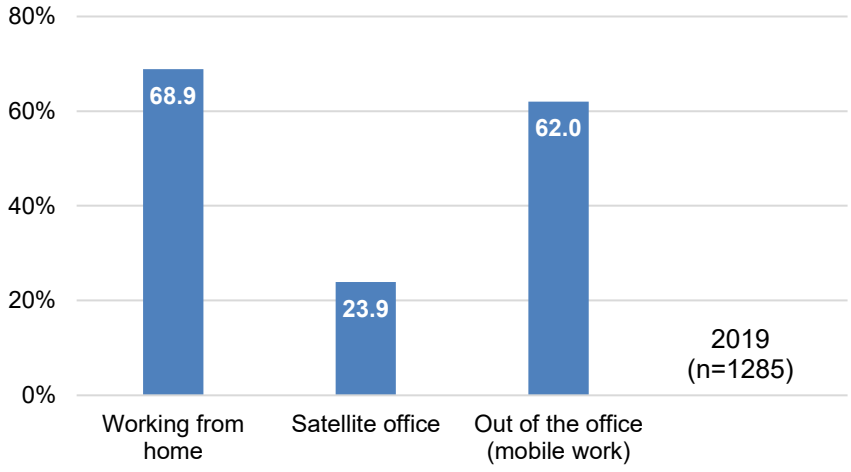
Figure 4-7: Having engaged and hoping to engage in telework



Note: as a percentage of individuals aged 15 or older and working for businesses and other organizations

(The survey took place in late September 2019 before the COVID-19 pandemic.)

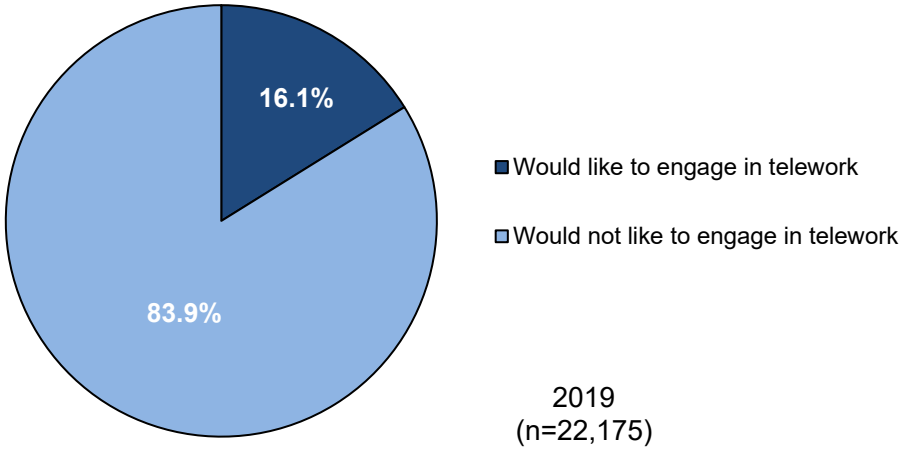
Figure 4-8: Type of telework (multiple responses accepted)



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

(The survey took place in late September 2019 before the COVID-19 pandemic.)

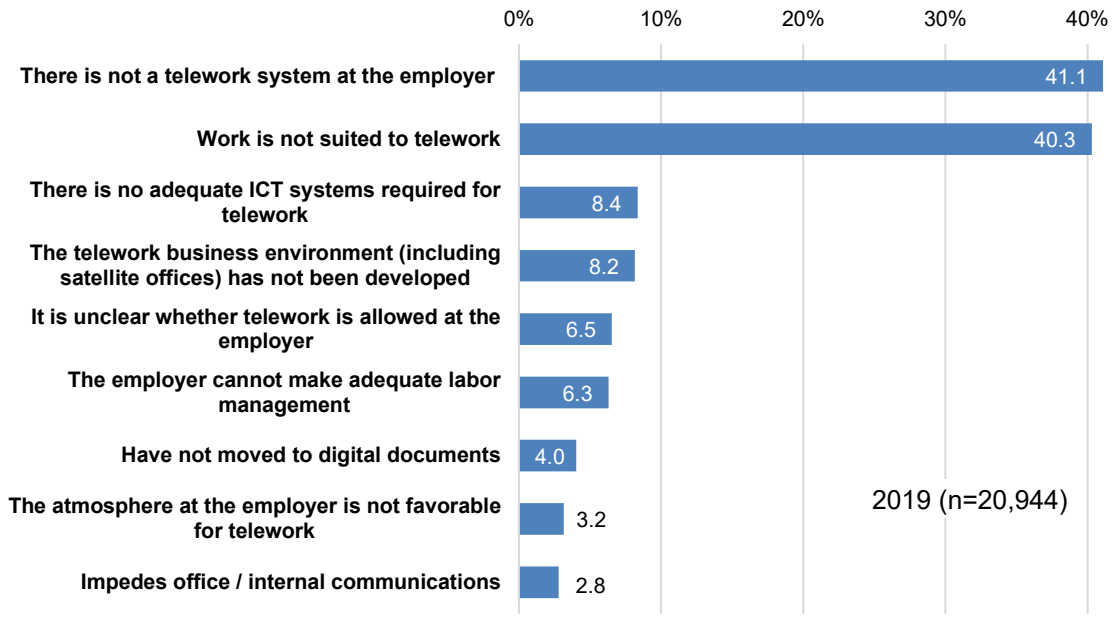
Figure 4-9: Whether or not individuals would like to engage in telework (2019)



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

(The survey took place in late September 2019 before the COVID-19 pandemic.)

Figure 4-10: Reasons for not engaging in telework (multiple responses accepted) (2019)



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

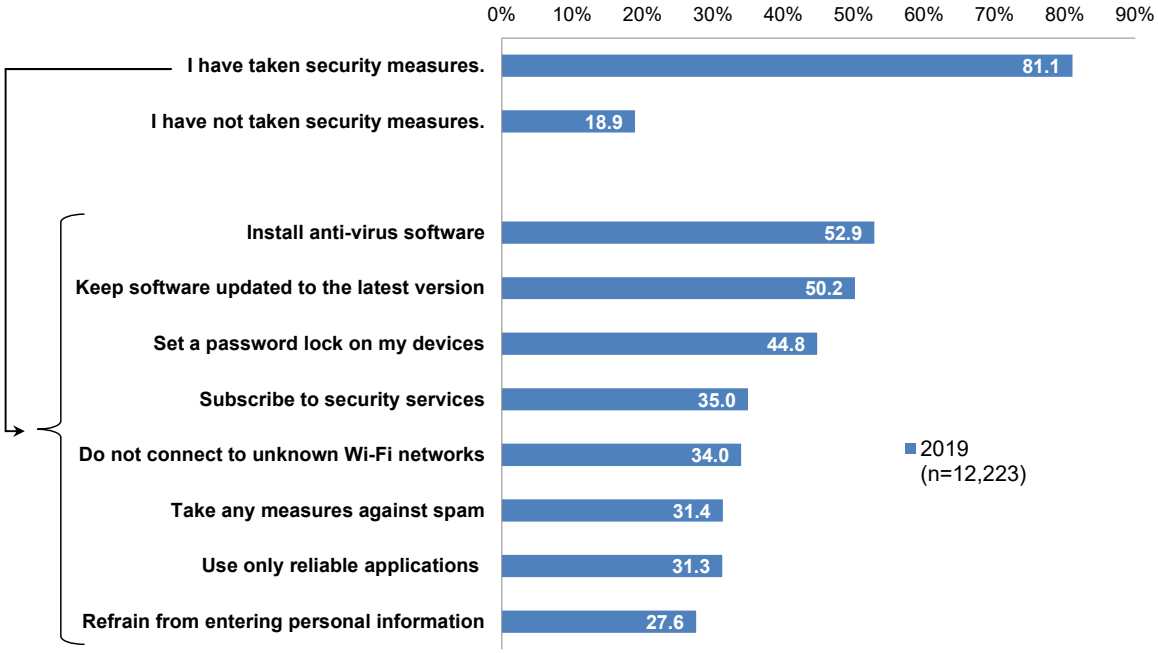
(The survey took place in late September 2019 before the COVID-19 pandemic.)

5. Safety and Security Efforts

(1) State of security measures (households)

Of households that use the internet, 81.1% have taken some security measures. The most common security measures taken are “installing anti-virus software,” at 52.9%. This is followed by “keeping software updated to the latest version” (50.2%) and “setting a password lock on my devices” (44.8%).

Figure 5-1: State of security measures (multiple responses accepted) (2019)



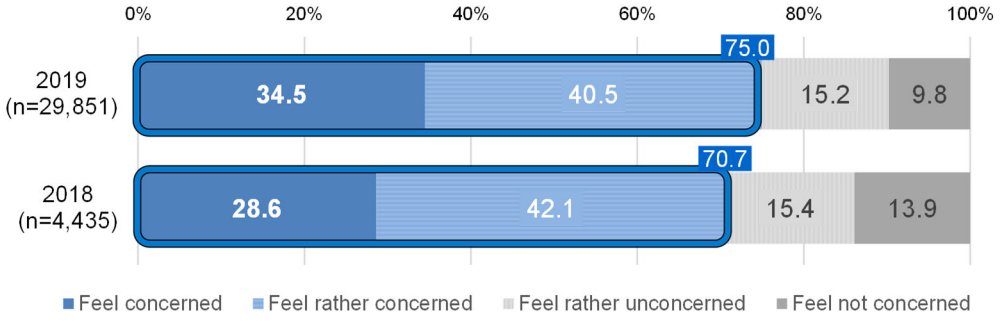
Tabulating responses from households that have at least one member who has used the internet in the past year

(2) Concerns about using the internet (individuals)

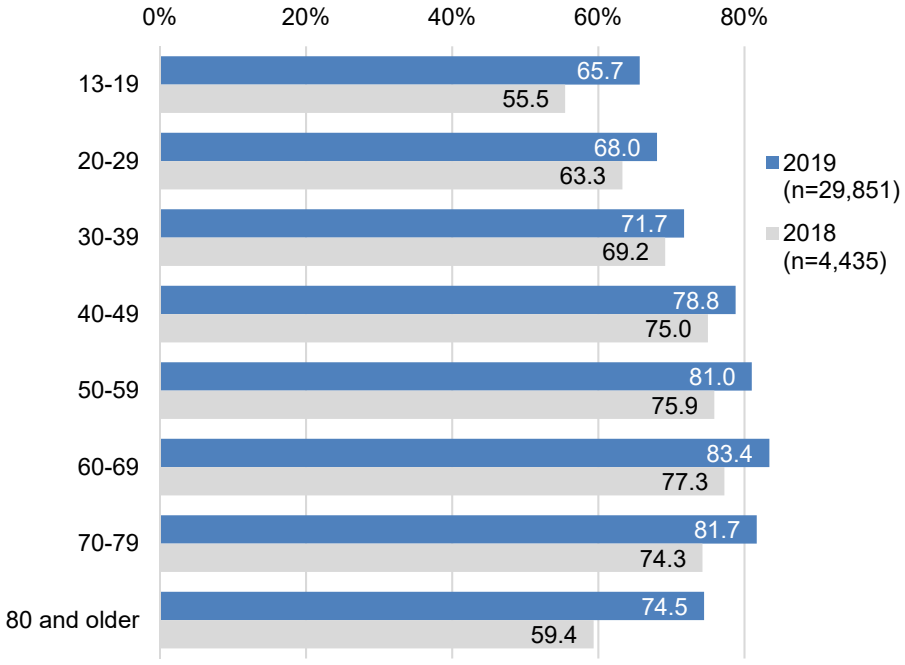
The combined percentage of internet users who “feel concerned” and “feel rather concerned” during internet use stands at 75.0%, rising by 4.3 points from the previous year.

The most frequently cited type of concern about using the internet is “leak of personal information and internet use history” (cited by 88.4%), followed by “computer virus infections” (62.6%) and “concern about fraudulent email or fraud using the internet” (51.9%). Those citing “concern about the reliability of electronic payment means” account for 43.3% of respondents, up 5.5 points.

Figure 5-2: Concerns about using the internet



Responses from Internet users

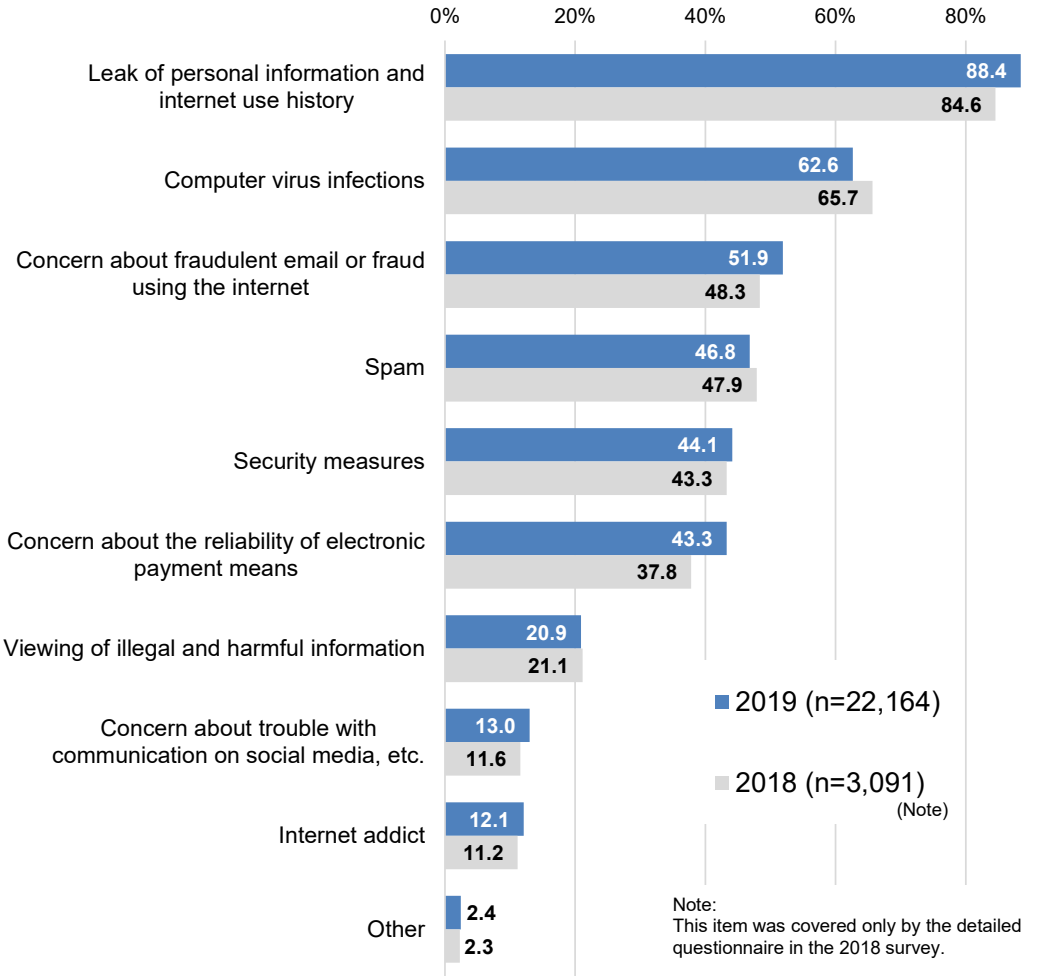


Notes: as a percentage of Internet users who “feel concerned” and “feel rather concerned”

This item was covered only by the detailed questionnaire in the 2018 survey.

The target age group of 13-19 years old was 12-19 years old in the 2018 survey.

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



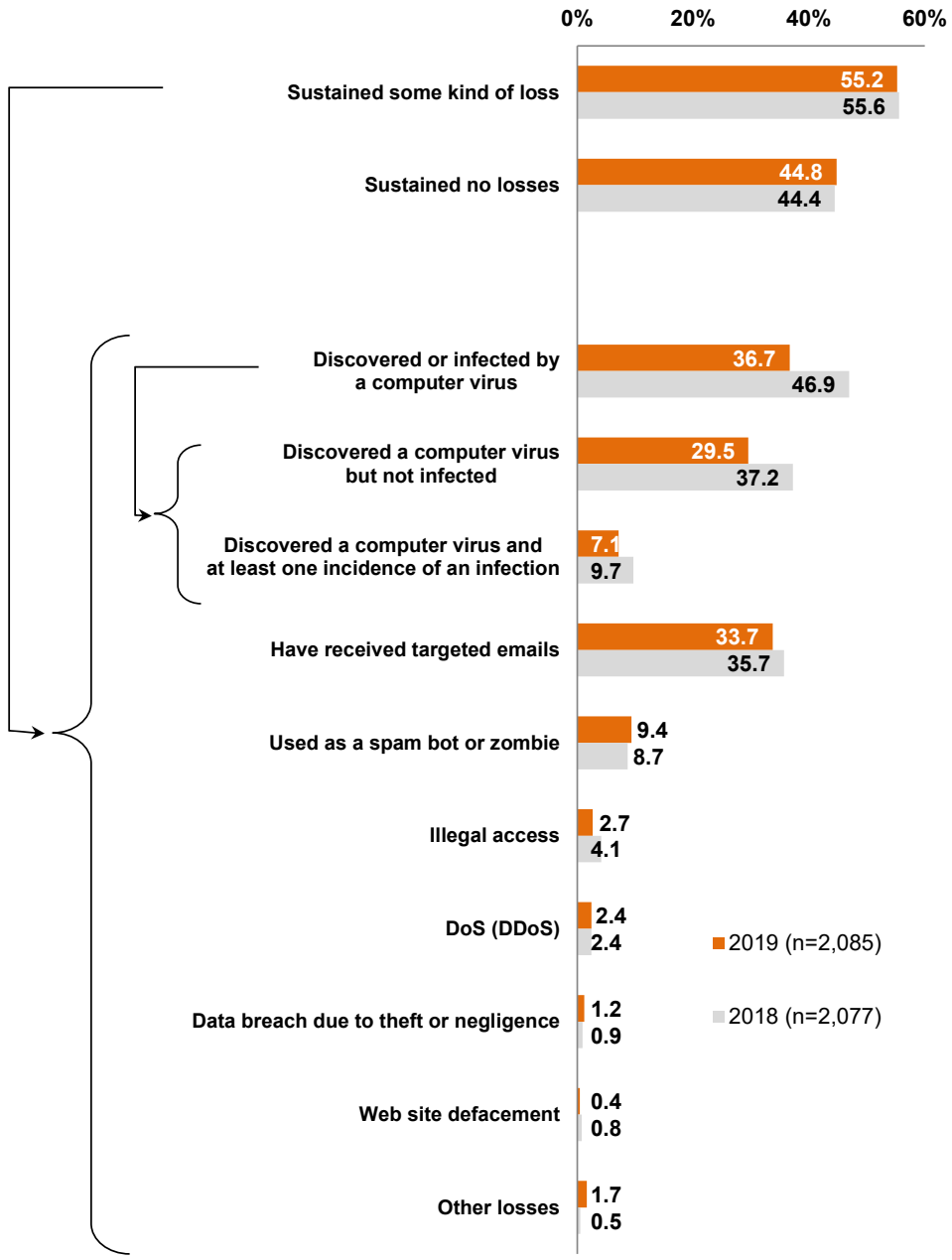
Responses from individuals who have used the internet and have concerns about using the internet

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

Among businesses that use information-communication networks, 55.2% 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 36.7%), followed by “targeted emails” (33.7%).

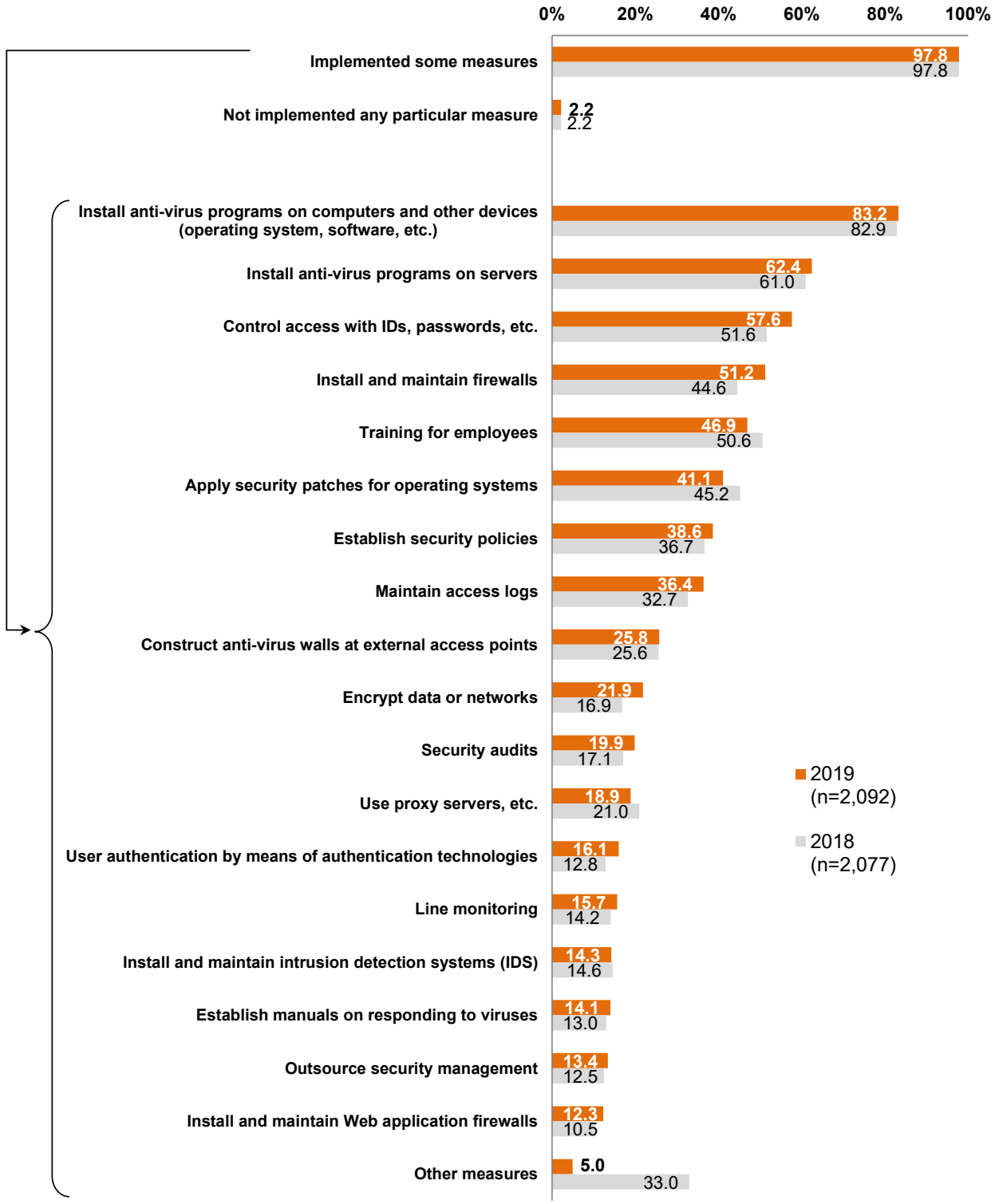
The percentage of businesses that implement some security measures is 97.8%. By type of security measure, the implementation rate is the highest at 83.2% for “installing anti-virus programs on computers and other devices (operating systems, software, etc.), followed by 62.4% for “installing anti-virus programs on servers” and 57.6% 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)