PRESS RELEASE

June 14, 2013

Communications Usage Trend Survey in 2012 Compiled

The Ministry of Internal Affairs and Communications (MIC) has compiled its Communications Usage Trend Survey, a survey of the communication services usage by households and enterprises at the end of 2011.

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 released in a machine-readable data format (CSV format).

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

Survey Outline

MIC has conducted the Communications Usage Trend Survey annually since 1990, targeting households (households and household members) and enterprises, as a general statistics survey in accordance with the Statistics Act (Act No. 53 of 2007). (Enterprise surveys have been conducted each year since 1993, except for 1994. Surveys of household members started in 2001.) MIC has conducted the household survey by prefecture since 2010.

	Households	Enterprises
Survey period	January – March 2013	
Survey area	Nationwide	
Scope of attributes / Level of survey	Households headed by someone aged 20 or older (as of April 1, 2012) and household members	Businesses with 100 or more regular employees (excluding the agriculture, forestry, fisheries, mining, and public services industries)
Number of samples [Effective mails]	40,592 [39,912]	5,140 [4,497]
Effective responses [%]	20,418 households (54,099 persons) [51.2%]	2,086 enterprises [46.4%]
Survey items	Communication services usage, communication-device ownership, etc.	
Survey method	Survey form sent and collected by postal mail	

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Attachment 1

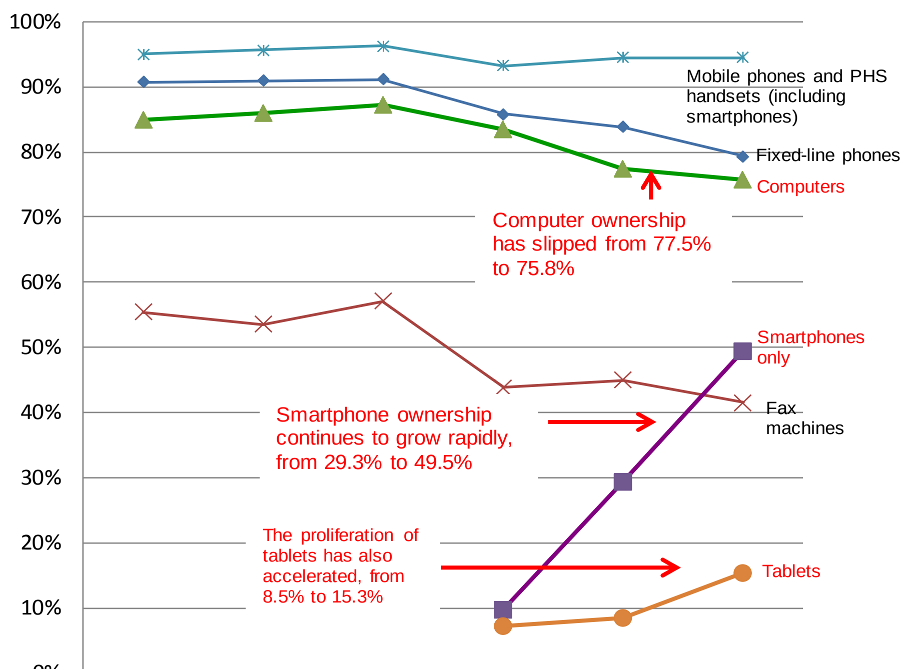
Highlights of the Communications Usage Trend Survey in 2012

Note: Household survey items are indicated with (households) in the title and business survey items with (businesses) in the title. All other items are based on the household members (individuals) survey.

1. Proliferation of Common Telecommunication Devices

Household ownership of common telecommunication devices (2007 – 2012)

While computer ownership has fallen, ownership of smartphones and tablets has continued to climb steeply.



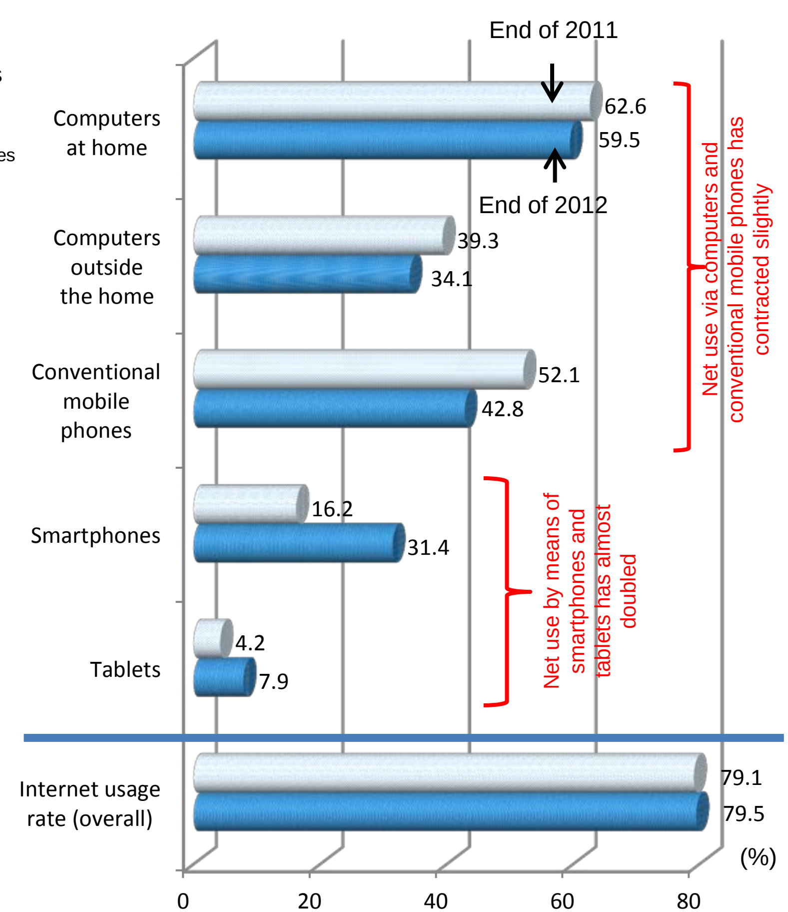
	End of 2007 (n = 3,640)	End of 2008 (n = 4,515)	End of 2009 (n = 4,547)	End of 2010 (n = 22,271)	End of 2011 (n = 16,530)	End of 2012 (n = 20,418)
Fixed-line telephones	90.7	90.9	91.2	85.8	83.8	79.3
Fax machines	55.4	53.5	57.1	43.8	45.0	41.5
Computers	85.0	85.9	87.2	83.4	77.4	75.8
Smartphones only				9.7	29.3	49.5
Mobile phones and PHS handsets	95.0	95.6	96.3	93.2	94.5	94.5
Tablets				7.2	8.5	15.3

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

Note: Figures for mobiles phones and PHS handsets (including smartphones) have included smartphones since the end of 2010. The ownership percentage of mobile phones and PHS handsets excluding smartphones was 89.4% at the end of 2011 and 81.2% at the end of 2012.

Internet use by device (as a percentage of all Internet users)

Internet use by means of smartphones and tablets has doubled.



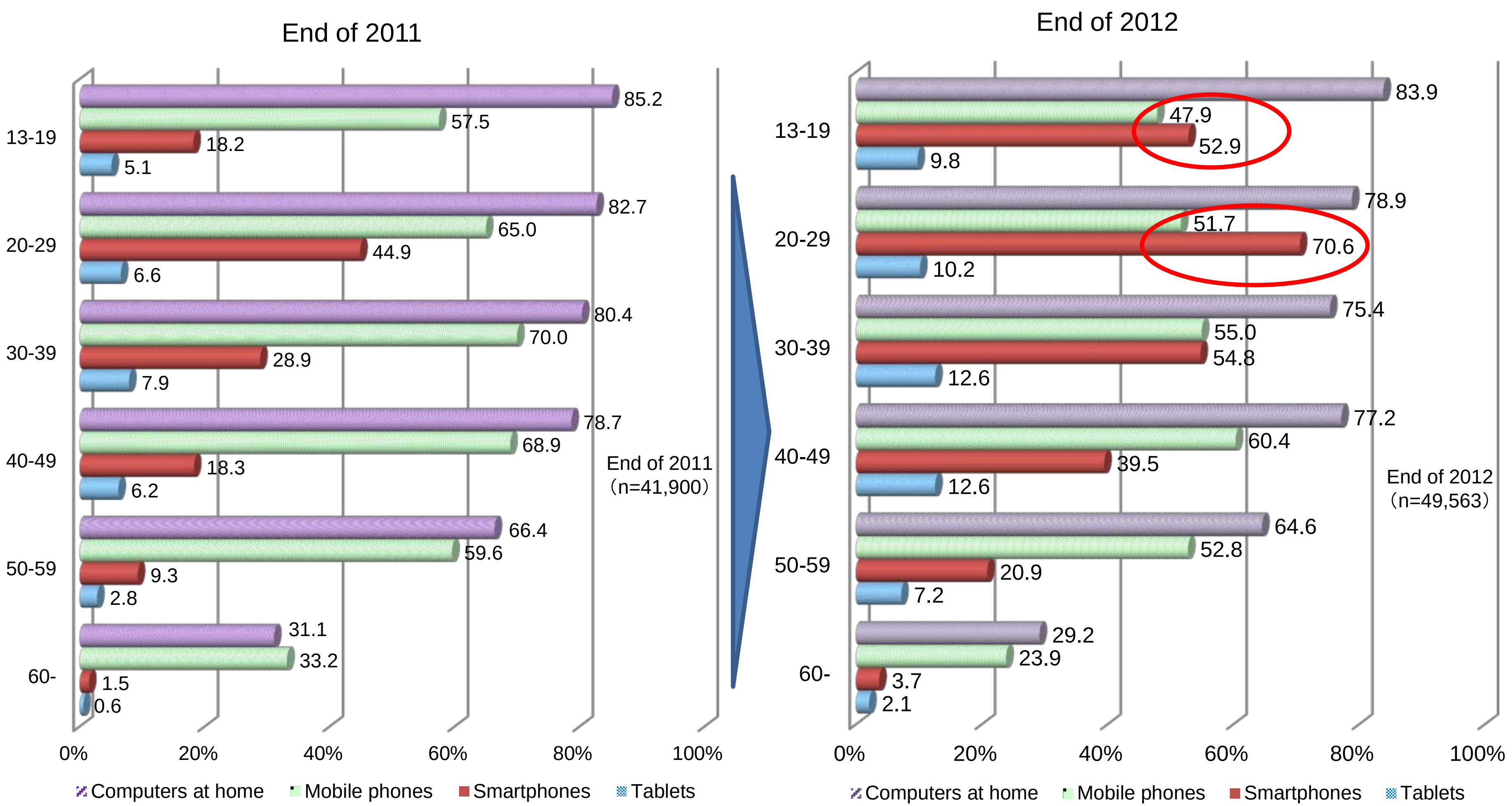
End of 2012 (n = 49,563)
End of 2011 (n = 41,900)

Note: Each figure is the percentage of all household members (individuals) in each year's survey who used the respective device in the previous year to access the Internet (multiple responses accepted, non-responses excluded).

2. Internet Usage Trends (1)

Individual Internet usage by age group (as a percentage of the respective age group's population)

Smartphone growth has been striking in the under-60s age groups. Smartphones have overtaken conventional mobile phones in the under-30 age groups.

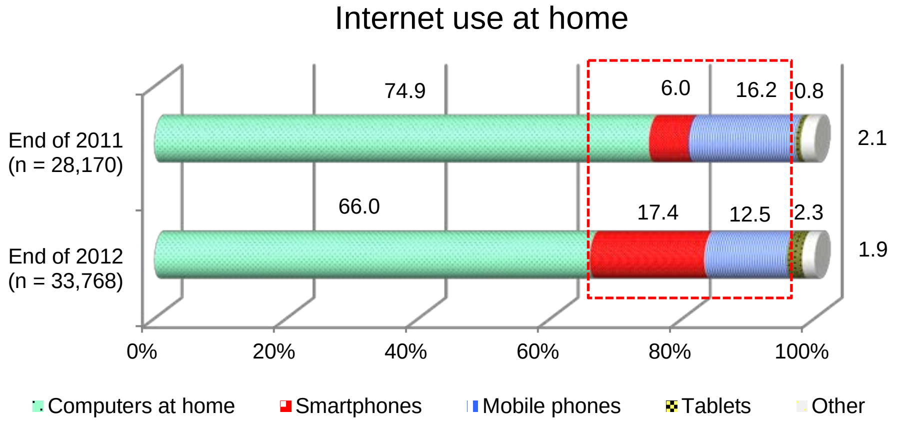


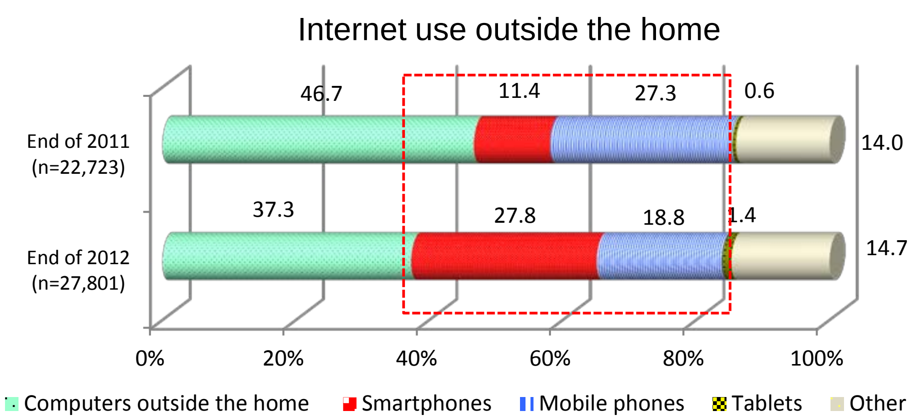
Note: Figures for the end of 2011 were taken from the 2011 Communication Usage Trend Survey.
Note: Each figure is the Internet usage rate among surveyed household members (individuals) for the respective device and age group (non-responses excluded).

2. Internet Usage Trends (2)

Primary Internet access device used at home and outside the home (as a percentage of Internet users)

Smartphones have overtaken conventional mobile phones as a primary Internet access device both at home and outside the home.



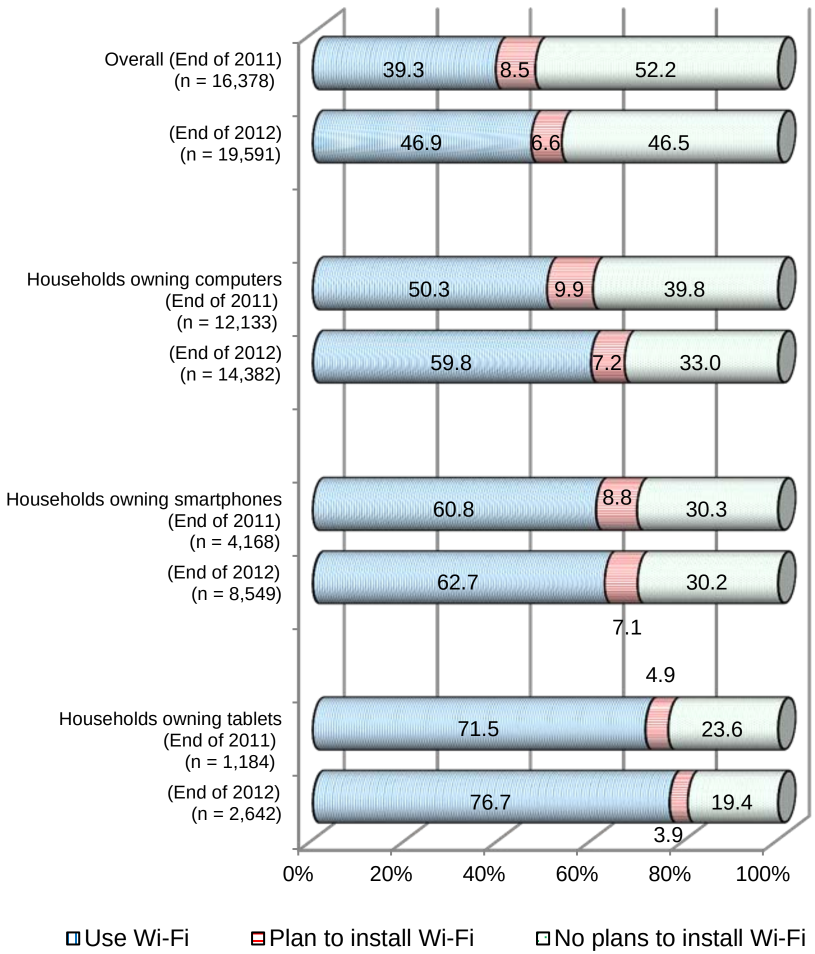


Note: Each figure is the percentage of Internet users who use the respective device as their primary Internet access device at home and outside the home (non-responses excluded).

Note: The category "other" includes responses that the Internet is not used either at home or outside the home.

Home Wi-Fi usage by owned device (households)

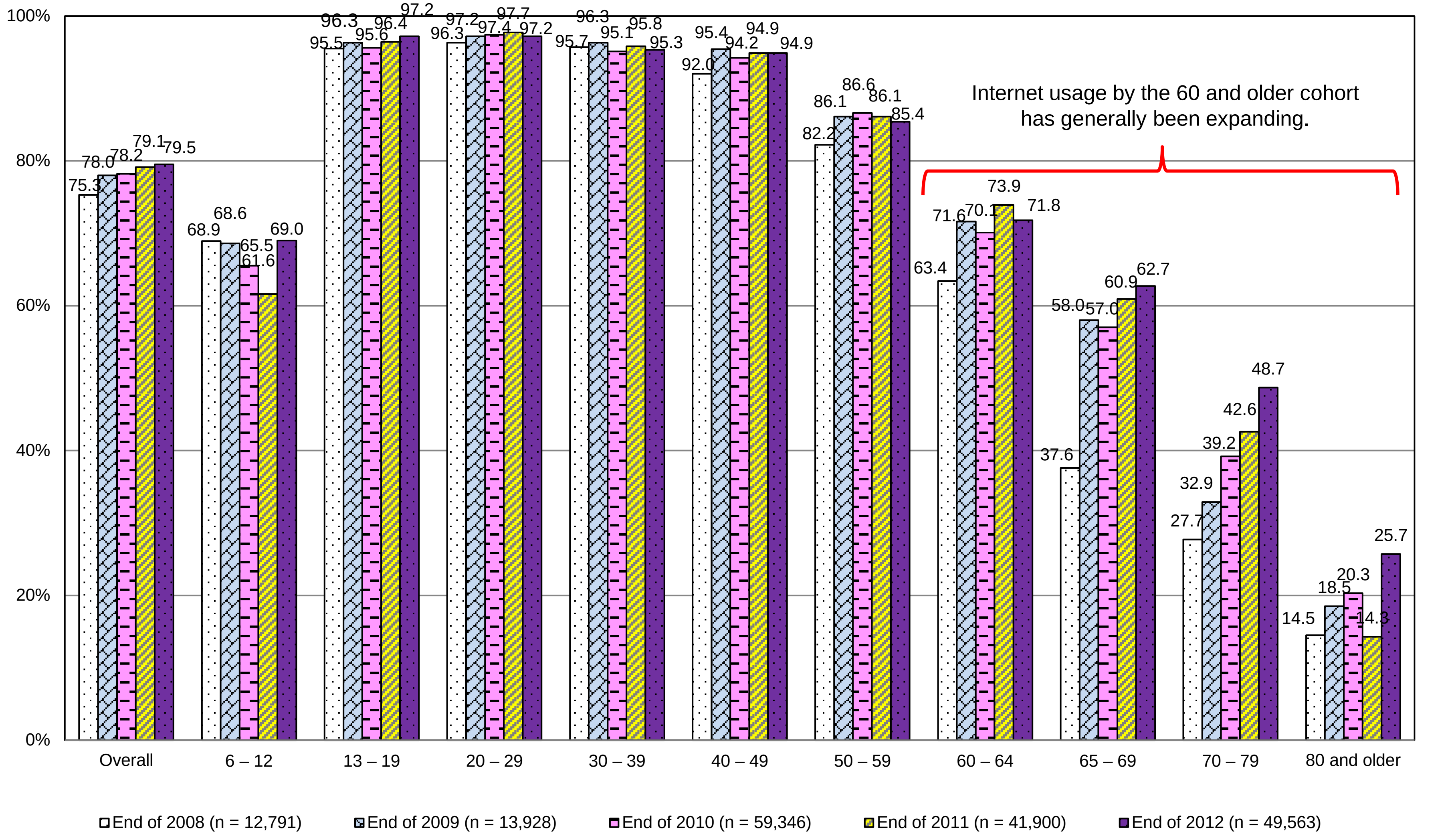
More than 60 percent of households owning smartphones or tablets use home Wi-Fi networks.



(Non-responses excluded)

2. Internet Usage Trends (3) — Internet Penetration by Age Group

Internet usage in the 13 to 49 cohort has reached a stable, mature state, at over 90 percent, while Internet usage in the 60 and older cohort has been expanding on the whole.



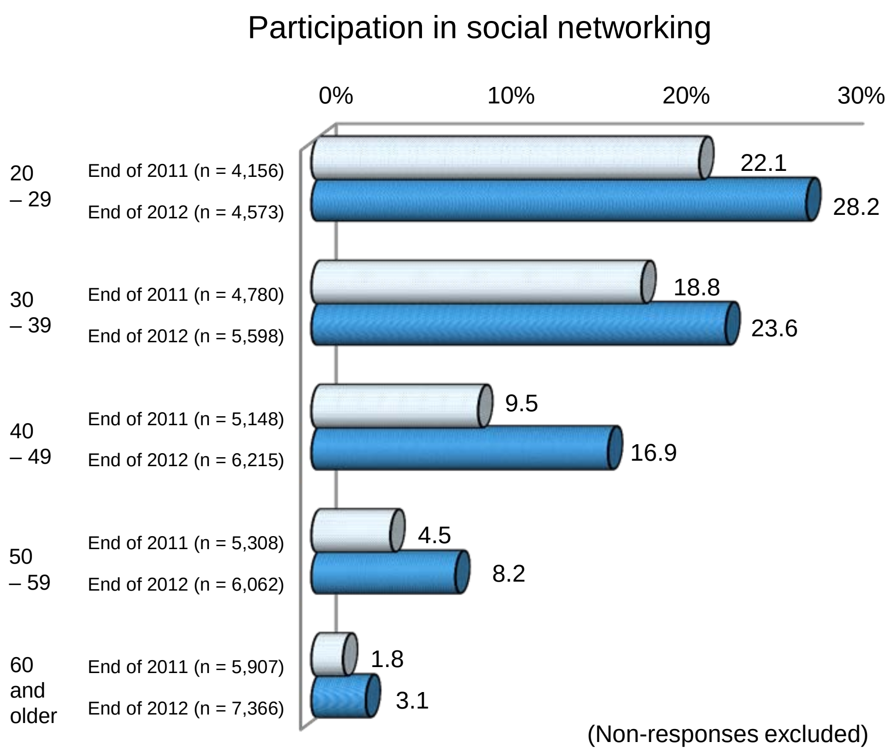
Note: Overall figures are for the 6 and older population.
Figures do not include non-responses.

3. Social Media Usage Trends

Use of social media by individuals and businesses has been on an upward trend.

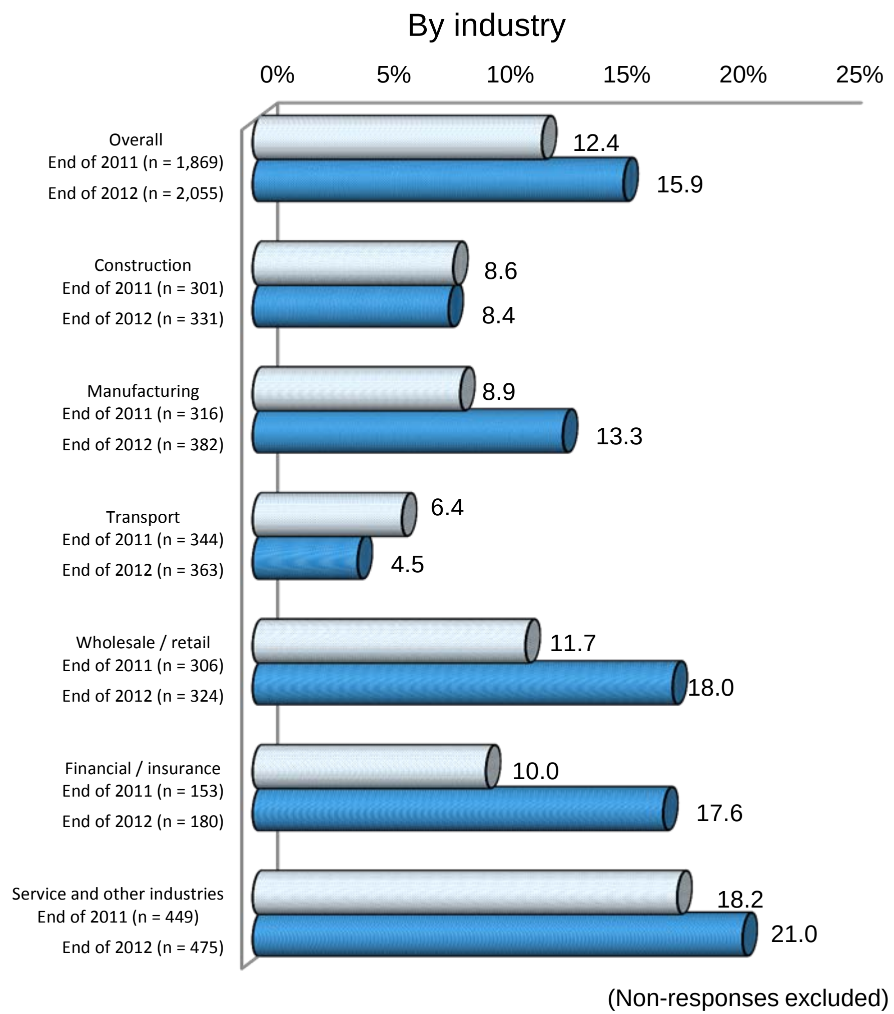
Social networking usage

Use of social networking by all age groups grew from the previous year.



Social media use by businesses

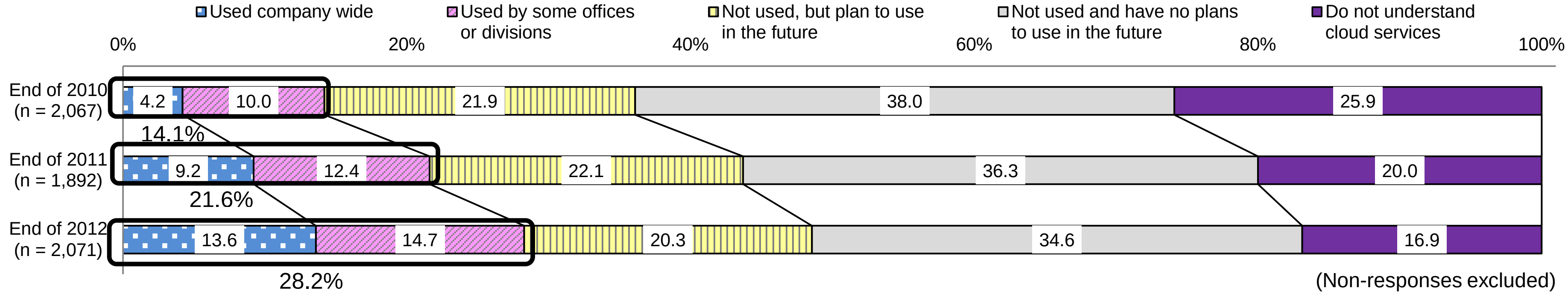
The number of businesses using social media is expanding. More than 20 percent of businesses in the "service and other industries" use social media.



4. Cloud Service Usage (businesses)

Cloud service usage

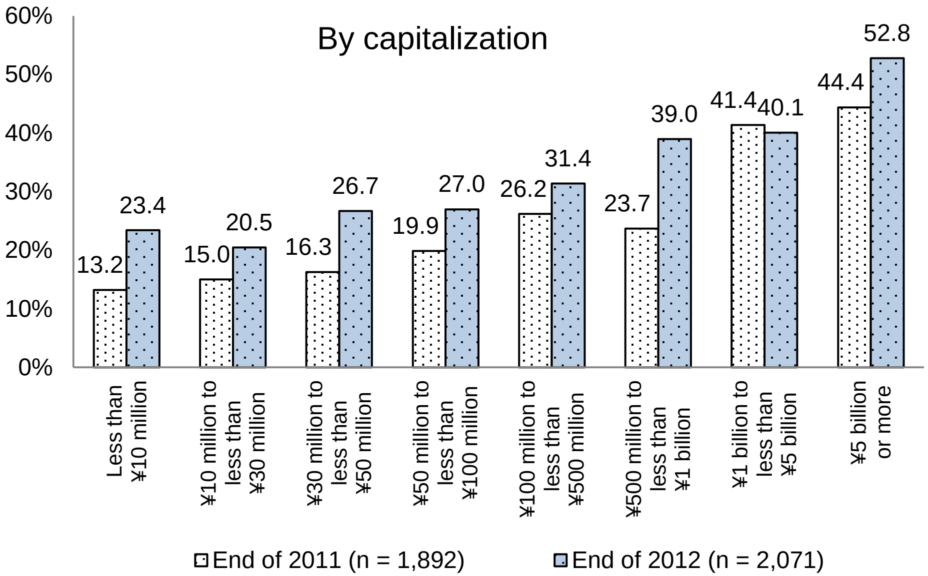
The percentage of businesses using cloud services doubled from the end of 2010, rising from 14.1 percent to 28.2 percent.



(Non-responses excluded)

Cloud service usage by capitalization

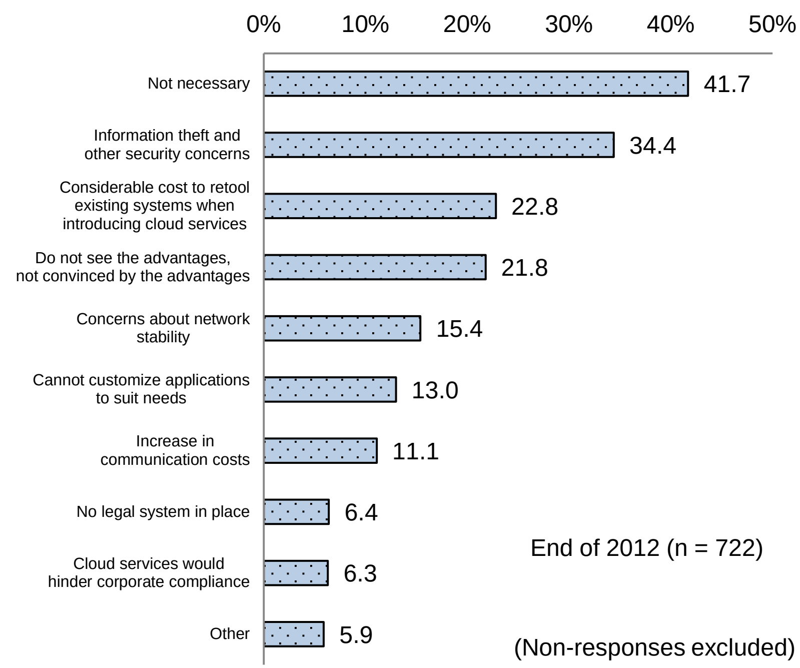
Cloud service usage generally increases in proportion to capitalization size.



(Non-responses excluded)

Reasons for not using cloud services

Of businesses not using cloud services, 41.7 percent said “not necessary” and 34.4 percent said “security concerns.”

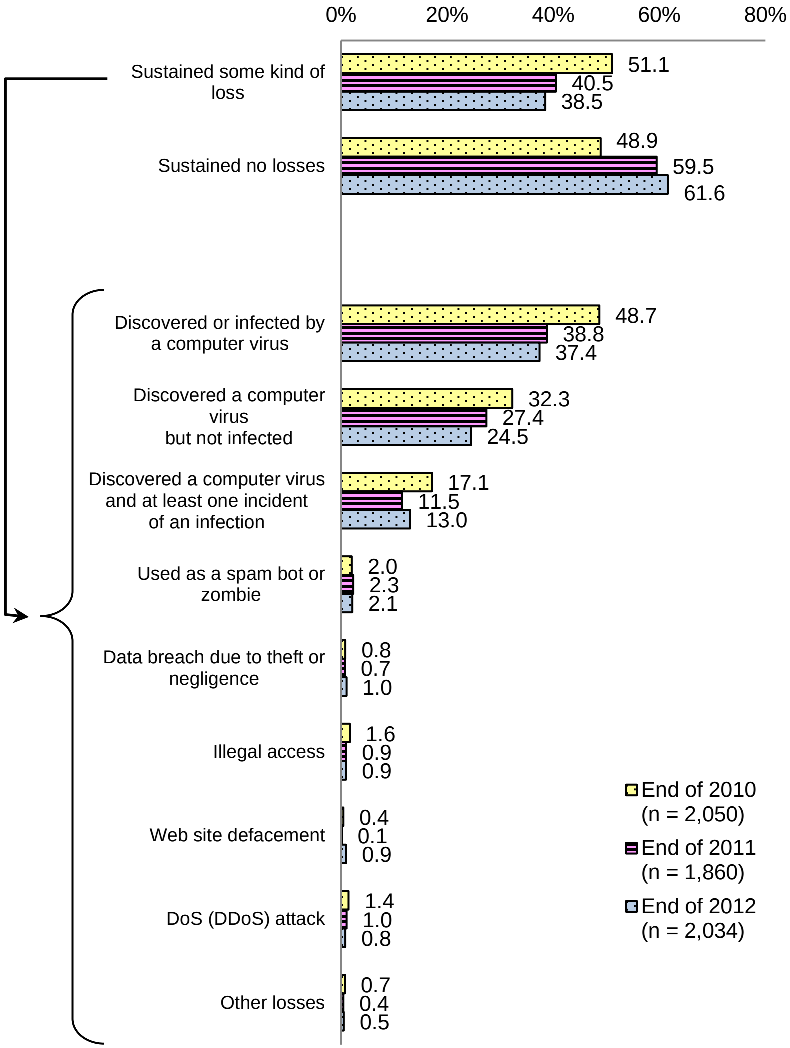


(Non-responses excluded)

5. Security Breaches on Company Communication Networks (businesses)

Information security losses sustained by businesses

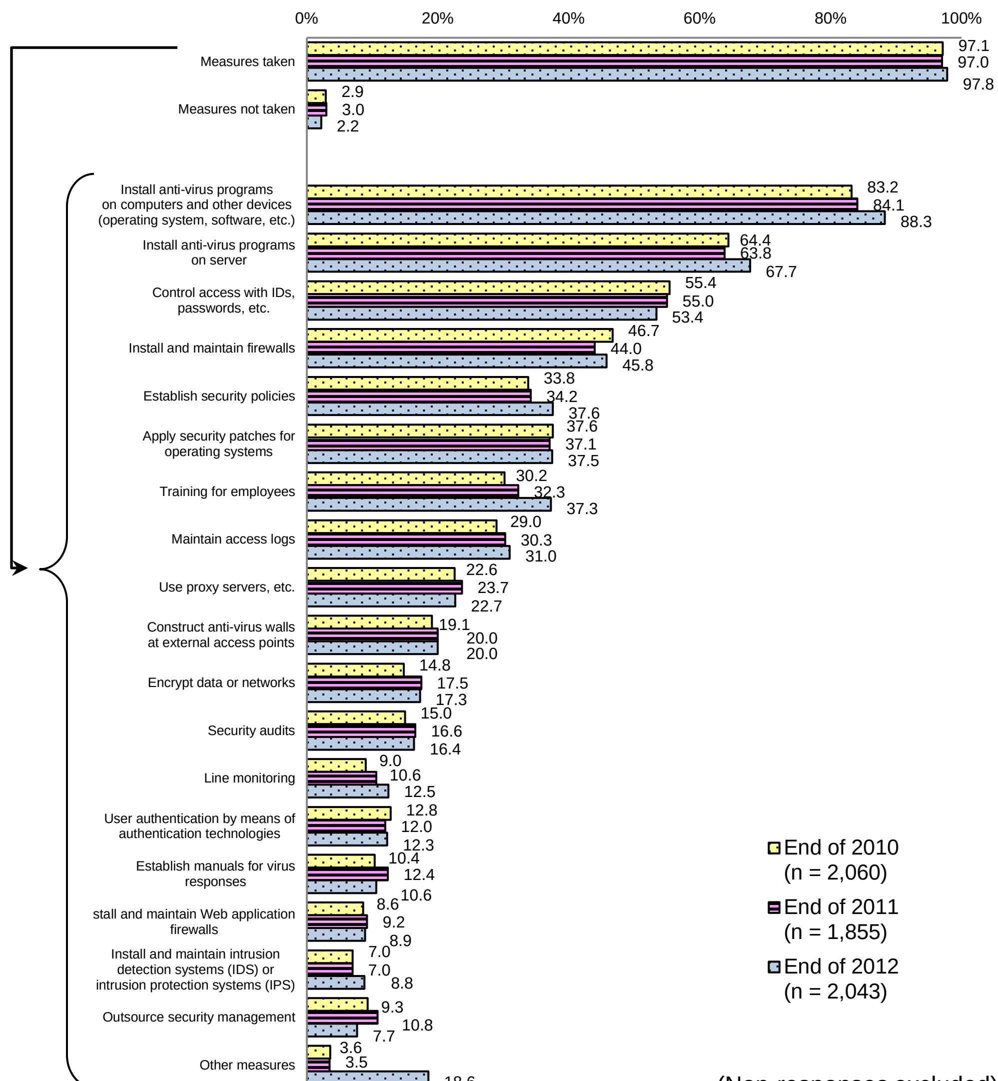
The percentage of businesses reporting viruses or other losses has fallen significantly from 51.1 percent in the 2010 survey to 38.5 percent in the 2012 survey.



(Non-responses excluded)

Information security measures taken by businesses

The percentage of businesses that have taken some security measures has remained high, in the 97 percentile, on all three surveys between 2010 and 2012.

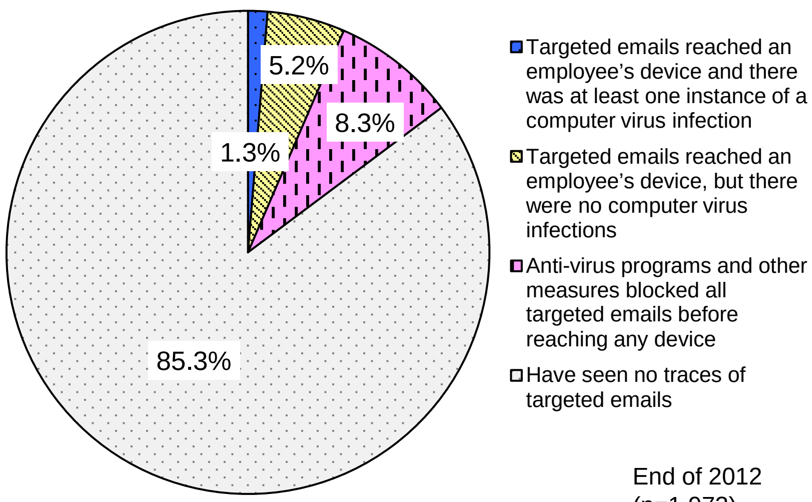


(Non-responses excluded)

6. Targeted Email Losses and Security Measures (businesses)

Targeted email losses

14.7 percent of businesses reported they had sustained losses from targeted email. Of these, 1.3 percent reported at least one instance of computer virus infection.

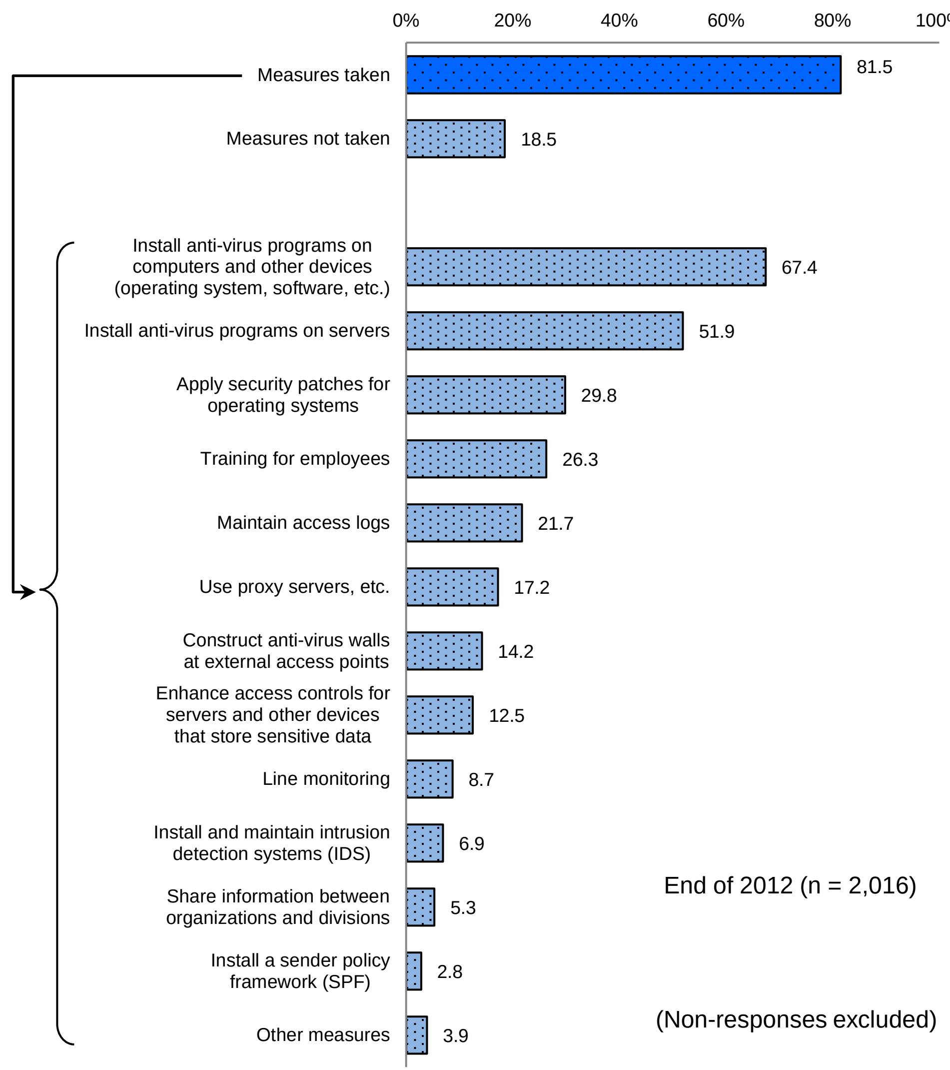


End of 2012
(n=1,973)

(Non-responses excluded)

Targeted email security measures

81.5 percent of businesses have taken some security measures against targeted email. More than 50 percent have installed anti-virus programs as a protection measure.



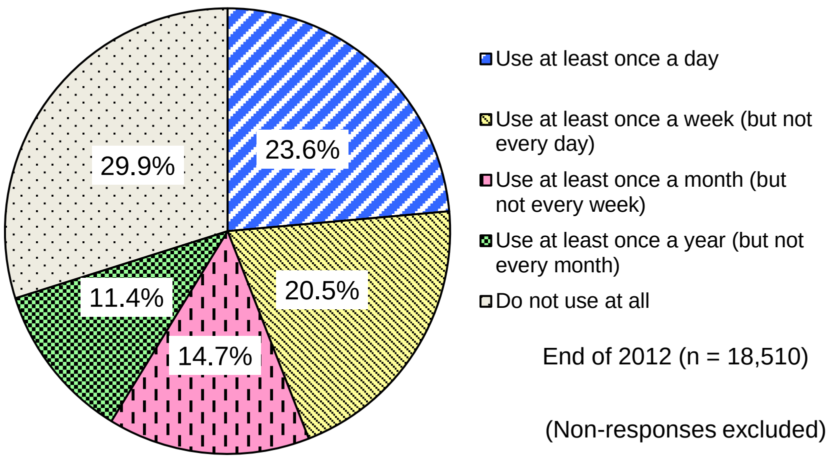
End of 2012 (n = 2,016)

(Non-responses excluded)

7. Digital Television Broadcast Usage

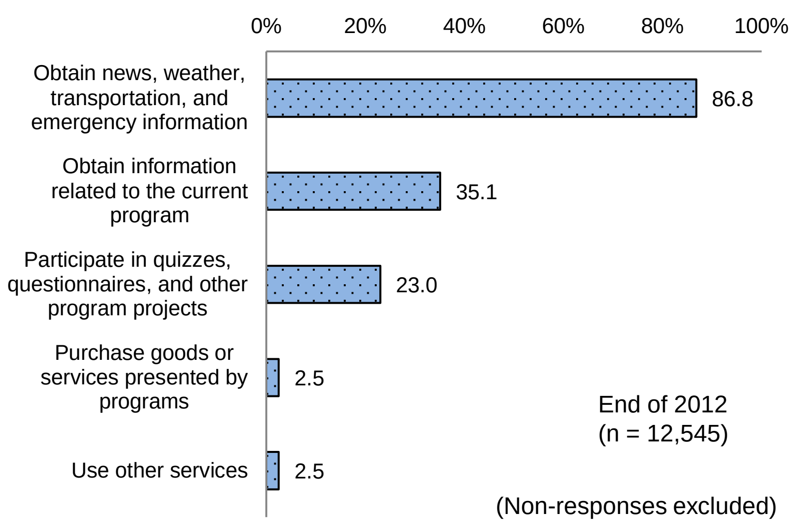
Data broadcast usage (households)

70.1 percent of households used data broadcasts in the past year. The most common uses were to obtain local information such as news and weather.



End of 2012 (n = 18,510)

(Non-responses excluded)

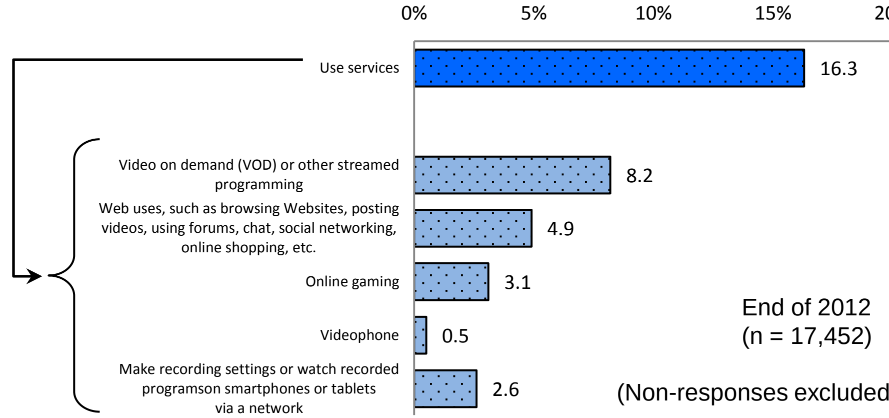


End of 2012 (n = 12,545)

(Non-responses excluded)

Usage of services available on digital broadcast receivers (households)

16.3 percent of households use services via a digital broadcast receiver. Nearly 10 percent use VOD or other streamed programming.

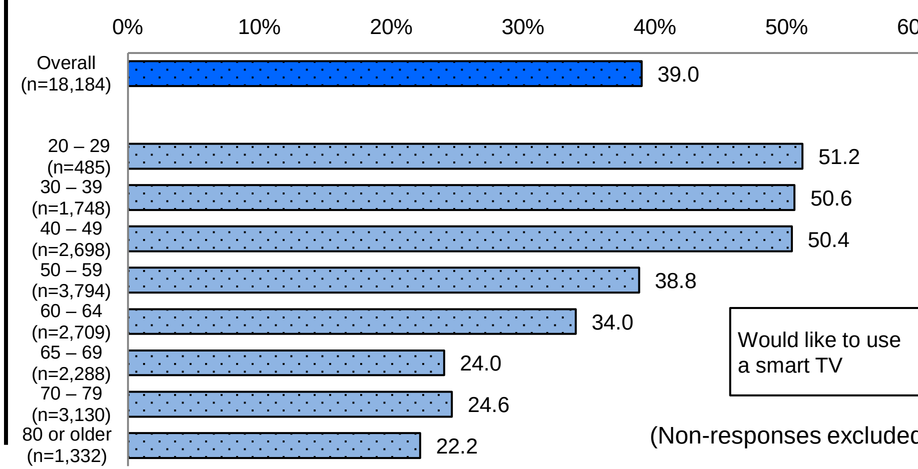


End of 2012 (n = 17,452)

(Non-responses excluded)

Smart TV usage (households)

About 40 percent of households are inclined to use smart TVs. This percentage tops 50 percent in households headed by someone between 20 and 49.



(Non-responses excluded)

Attachment 2

Summary Findings of the 2012 Communications Usage Trend Survey

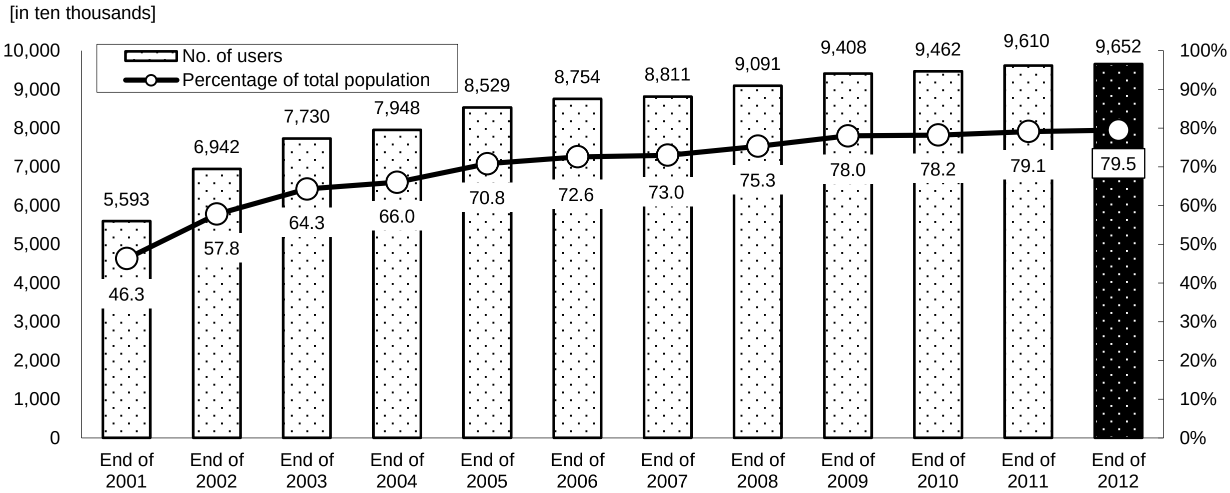
Table of Contents

1. Proliferation of the Internet and Other Networks

(1) Number of Internet users and their percentage of the general population (individuals)

The number of people who used the Internet over the course of 2012 is estimated to be 96.52 million, an increase of 420,000 from the previous year. The percentage of the general population who are Internet users was 79.5 percent.

Figure 1-1: Transitions in the number of Internet users and their percentage of the general population (individuals)



Notes: 1. The survey questioned persons aged six and older.
2. The number of Internet users was estimated from the survey results and includes all people aged six and older who had used the Internet over the preceding year. The estimate included computers, mobile phones, PHS handsets, smartphones, tablets, game consoles, and all other devices used to access the Internet and included personal use, work use, school use, and all other purposes.
3. The number of Internet users was calculated by multiplying the estimated population aged six and older (estimated from census returns and mortality tables) by the Internet usage rate among those six and older found with the survey.
4. Calculations excluded non-responses. (This holds for all findings in this document.)

(2) Internet usage rates (individuals)

Examining Internet usage rates by age found that more than 90 percent of people between 13 and 49 used the Internet. And while an increasing trend was generally seen in the 60 and over cohort, this cohort's usage rate is still lower than that of other age brackets.

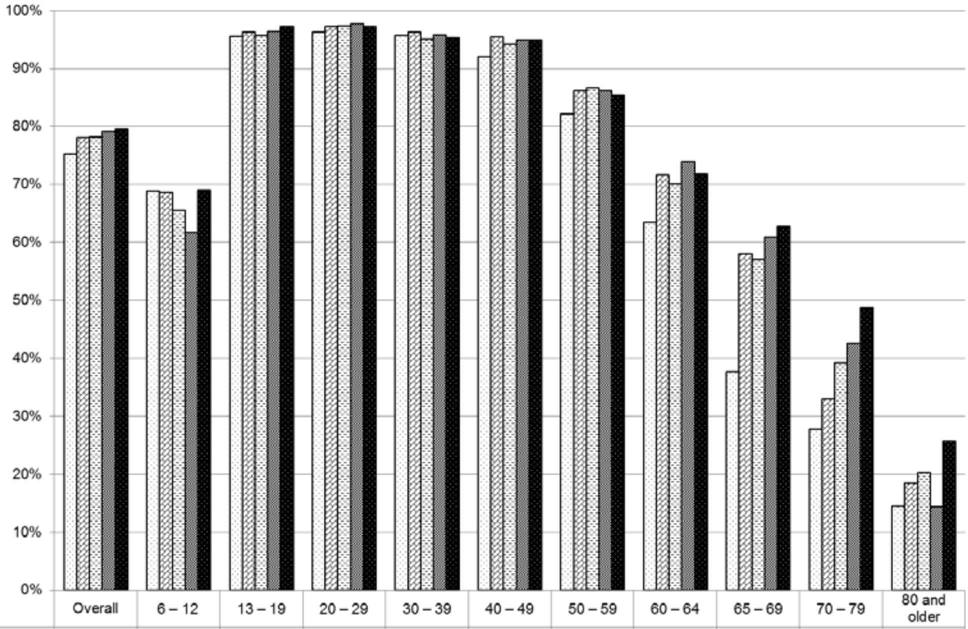
The results also show that the higher the annual household income, the higher the Internet usage rate.

Examining the frequency of Internet use found that about 80 percent of smartphone users (outside the home) use the Internet at least once a day.

Furthermore, usage rates were higher in prefectures with large urban areas. Twelve prefectures had above-average usage rates: Saitama, Chiba, Tokyo, Kanagawa, Aichi, Shiga, Osaka, Hyogo, Nara, Okayama, Hiroshima, and Fukuoka.

Note: Since the 2011 survey, questions about individuals' Internet usage were divided into "at home" and "outside the home".

Figure 1-2: Transitions in Internet usage by age (individuals)



	Overall	6 – 12	13 – 19	20 – 29	30 – 39	40 – 49	50 – 59	60 – 64	65 – 69	70 – 79	80 and older
End of 2008(n=12,791)	75.3	68.9	95.5	96.3	95.7	92.0	82.2	63.4	37.6	27.7	14.5
End of 2009(n=13,928)	78.0	68.6	96.3	97.2	96.3	95.4	86.1	71.6	58.0	32.9	18.5
End of 2010(n=59,346)	78.2	65.5	95.6	97.4	95.1	94.2	86.6	70.1	57.0	39.2	20.3
End of 2011(n=41,900)	79.1	61.6	96.4	97.7	95.8	94.9	86.1	73.9	60.9	42.6	14.3
End of 2012(n=49,563)	79.5	69.0	97.2	97.2	95.3	94.9	85.4	71.8	62.7	48.7	25.7

Figure 1-3: Internet usage by age and gender — end of 2012 (individuals)

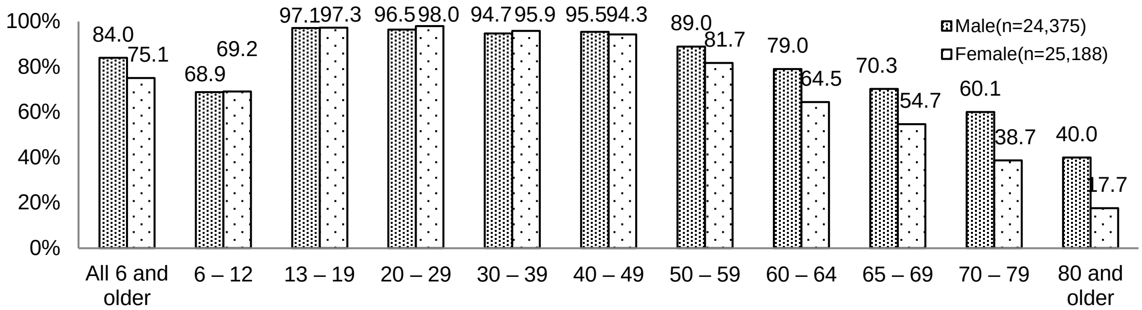


Figure 1-4: Internet usage by annual household income — end of 2012 (individuals)

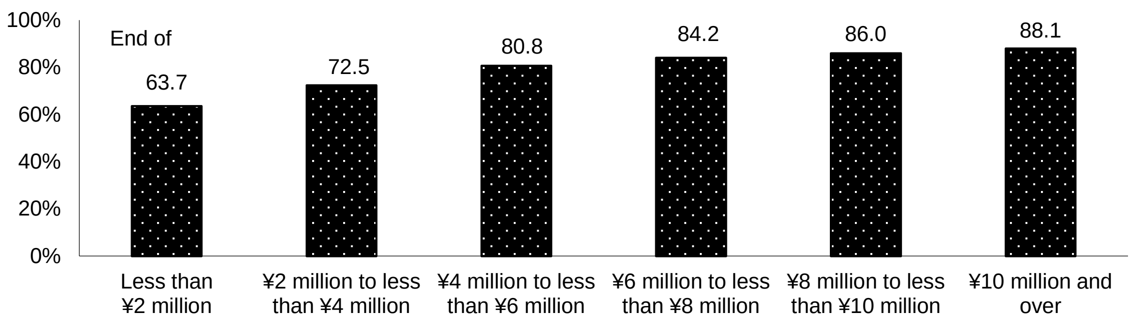
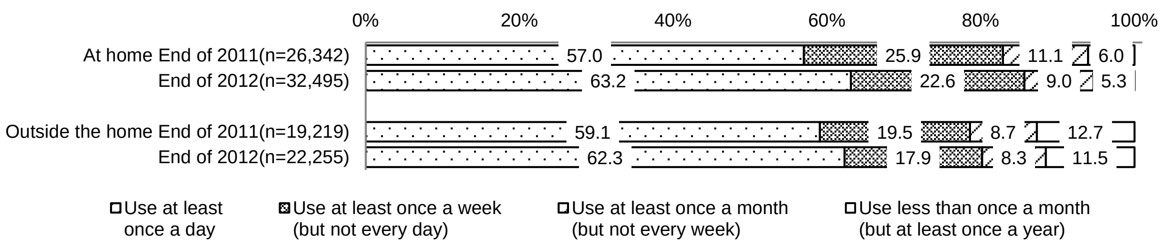
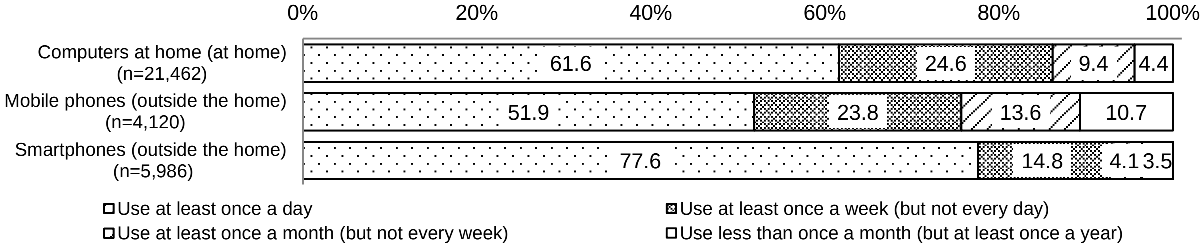


Figure 1-5: Frequency of Internet use at home and outside the home



(This question was asked to respondents who used the Internet either at and/or outside the home)

Figure 1-6: Frequency of Internet use at home and outside the home by device — end of 2012



(This question was asked to respondents who used the Internet either at and/or outside the home and subdivided by their primary Internet access device)

Figure 1-7: Internet usage by prefecture — end of 2012 (individuals)

(%)

Prefecture (n)		Total usage rate	Computers at home	Computers outside the home	Mobile phones	Smartphones
Hokkaido	(1,434)	77.5	55.3	33.2	44.9	25.0
Aomori	(855)	70.6	43.4	26.6	41.8	22.0
Iwate	(1,128)	68.9	38.4	24.2	38.4	22.0
Miyagi	(1,080)	75.9	52.4	34.4	41.6	27.7
Akita	(1,438)	70.4	47.0	32.1	35.9	21.8
Yamagata	(1,392)	71.9	50.7	32.0	39.1	24.0
Fukushima	(875)	70.2	46.2	26.7	37.7	25.8
Ibarki	(1,140)	73.4	53.5	29.9	40.1	30.0
Tochigi	(1,023)	76.1	54.5	31.3	42.9	27.3
Gunma	(954)	78.5	58.5	31.3	44.3	31.2
Saitama	(1,184)	80.0	63.2	32.7	45.4	34.8
Chiba	(951)	81.0	63.0	31.0	45.7	31.9
Tokyo	(804)	87.3	67.6	44.5	50.7	37.8
Kanagawa	(877)	87.0	70.7	38.8	47.8	38.5
Niigata	(1,125)	74.4	51.6	29.7	39.6	23.4
Toyama	(1,321)	76.8	58.4	32.6	42.4	24.8
Ishikawa	(1,248)	79.0	61.8	38.2	42.8	29.1
Fukui	(1,280)	77.5	59.7	34.8	41.5	30.0
Yamanashi	(991)	77.4	56.9	32.5	42.4	29.6
Nagano	(1,428)	75.3	56.2	33.0	43.3	25.4
Gifu	(1,364)	75.4	56.8	32.6	37.8	30.7
Shizuoka	(1,301)	74.5	55.7	30.4	38.2	31.5
Aichi	(1,067)	80.5	60.0	34.1	39.3	30.3
Mie	(1,201)	78.4	56.8	32.2	40.4	28.3
Shiga	(1,242)	81.7	63.0	33.0	43.2	34.3
Kyoto	(961)	78.6	61.3	32.6	43.2	32.2
Osaka	(884)	82.1	64.5	32.2	40.7	36.7
Hyougo	(1,052)	79.9	63.3	37.9	43.5	32.4
Nara	(1,009)	80.2	62.2	32.2	41.3	34.4
Wakayama	(974)	74.6	58.2	29.6	34.1	23.9
Tottori	(1,106)	73.9	51.3	34.6	37.5	25.5
Shimane	(995)	68.8	46.2	31.6	39.0	25.0
Okayama	(1,063)	80.0	57.8	33.4	44.7	29.7
Hiroshima	(1,239)	81.1	62.0	37.4	43.4	30.0
Yanaguchi	(969)	75.4	55.1	31.5	35.9	28.4
Tokushima	(894)	74.0	51.9	32.0	43.9	25.7
Kagawa	(981)	78.5	57.6	35.8	39.0	29.5
Ehime	(928)	76.1	52.0	31.7	39.8	24.6
Kochi	(831)	76.8	53.5	35.4	37.9	22.0
Fukuoka	(813)	80.7	58.5	32.5	41.0	34.3
Saga	(946)	77.0	52.8	30.1	38.7	28.5
Nagasaki	(875)	72.6	48.1	29.2	36.9	25.5
Kumamoto	(977)	75.9	51.2	30.9	37.3	27.8
Oita	(920)	77.6	51.7	29.4	39.5	29.5
Miyazaki	(888)	74.5	52.7	29.4	36.7	27.8
Kagoshima	(875)	74.2	43.7	26.0	35.4	25.8
Okinawa	(680)	76.7	52.2	35.0	40.8	26.0
Overall	(49,563)	79.5	59.5	34.1	42.8	31.4

Note: Figures for mobile phones include PHS handsets and PDAs.

(3) Internet usage rates by device (individuals)

The most common device used to access the Internet during 2012 was "computers at home," at 59.5 percent, followed by "mobile phones" (42.8 percent) and "computers outside the home" (34.1 percent).

By age group, around 80 percent of each age bracket between 13 and 49 use "computers at home" as their primary Internet access device. Smartphone use surpassed mobile phone use in the 13 to 29 cohort.

Figure 1-8: Internet usage rates by primary device (individuals)

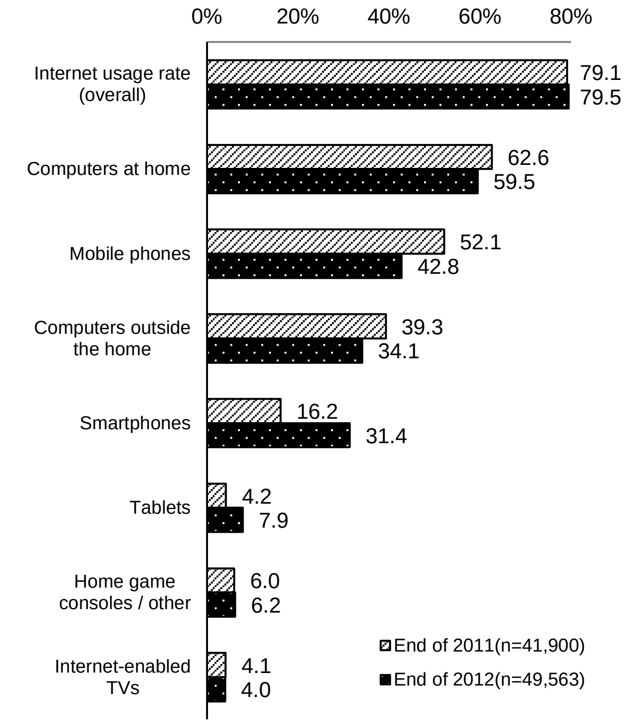


Figure 1-9: Internet usage rates by age and primary device — end of 2012 (individuals)

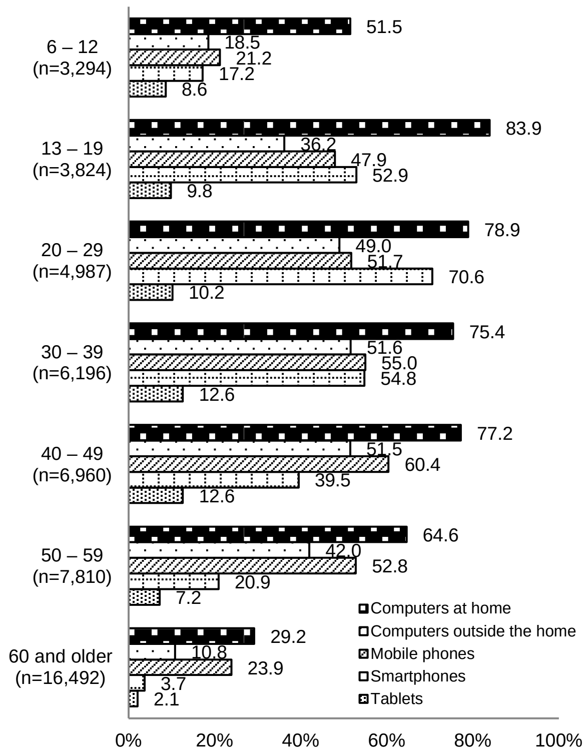


Figure 1-10: Primary device used for Internet access at home

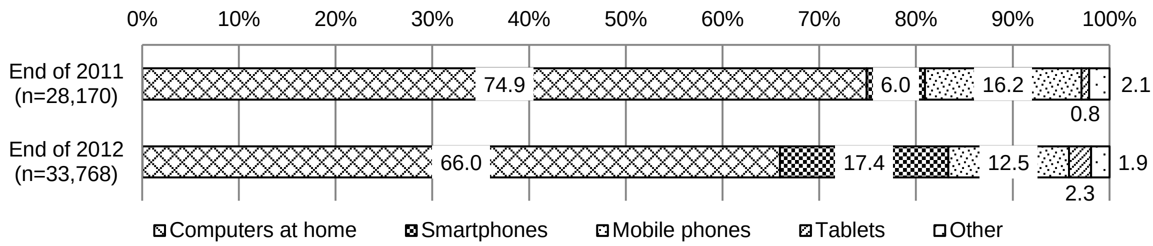
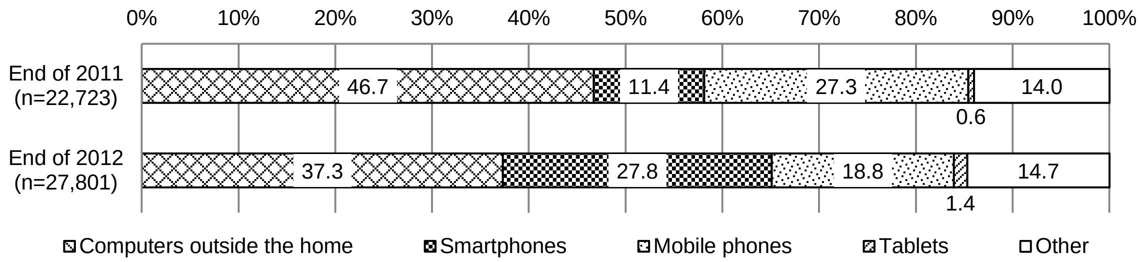


Figure 1-11: Primary device used for Internet access outside the home

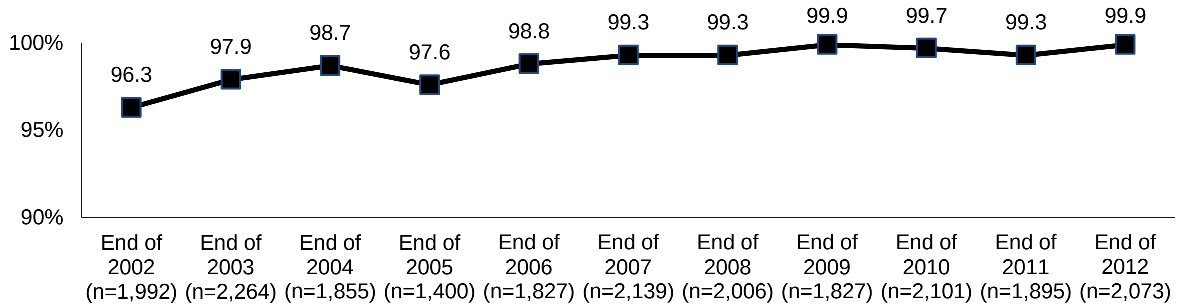


Note: "Other" includes responses indicating that the Internet was not used either at home or outside the home.

(4) Internet usage rates (businesses)

The rate of Internet usage among businesses was 99.9 percent. The usage rate has leveled off at the 99 percent bracket for several years, indicating that Internet use by businesses has reached full penetration.

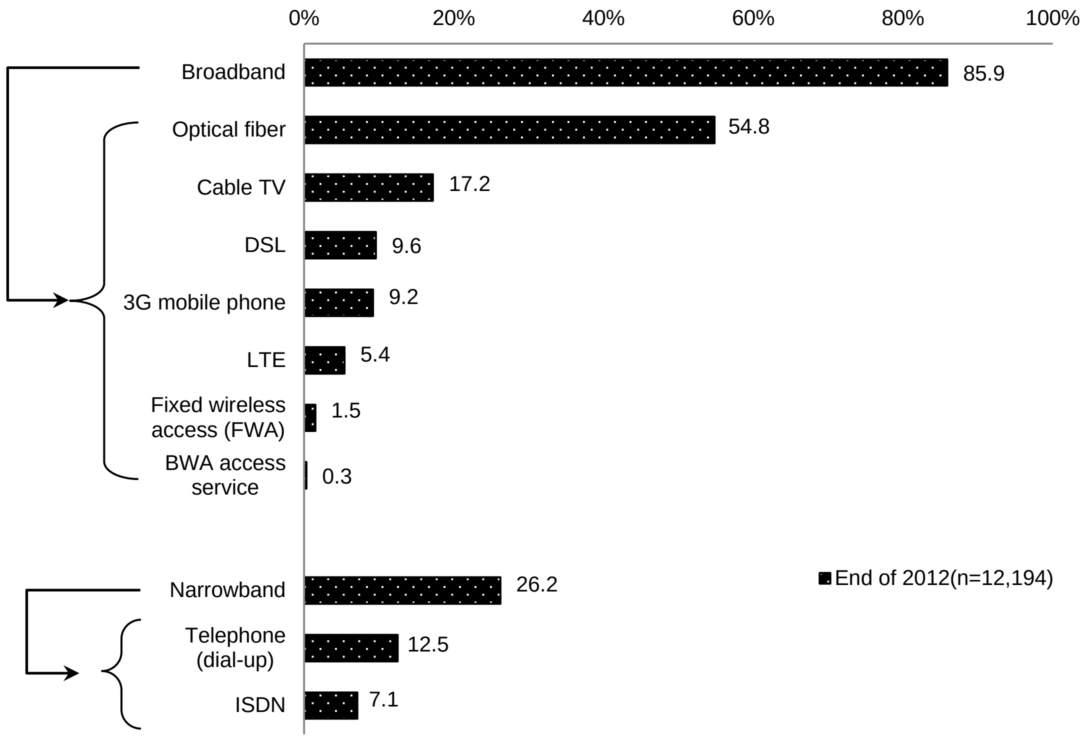
Figure 1-12: Transitions in Internet usage rates (businesses)



(5) Types of Internet connections (households)

85.9 percent of households used a broadband connection to access the Internet from computers at home, tablets, and other devices. Of households using a broadband connection, 54.8 percent used 54.8 percent used an optical fiber connection and 5.4 percent used an LTE connection.

Figure 1-13: Internet connections for computers at home and other devices — end of 2012 (households) (multiple responses accepted)



Notes: 1. Figures tabulated from households that use the Internet from "computers at home," "tablets," or "other devices."
2. The figure for broadband connections is the total of DSL connections, cable TV connections, optical fiber connections, fixed wireless access (FWA), BWA access services, 3G mobile phone connections (only when tethering with a computer), and LTE connections.
3. The figure for narrowband connections is the total of all other mobile phone connections (those other than 3G connections and LTE connections) and PHS connections.

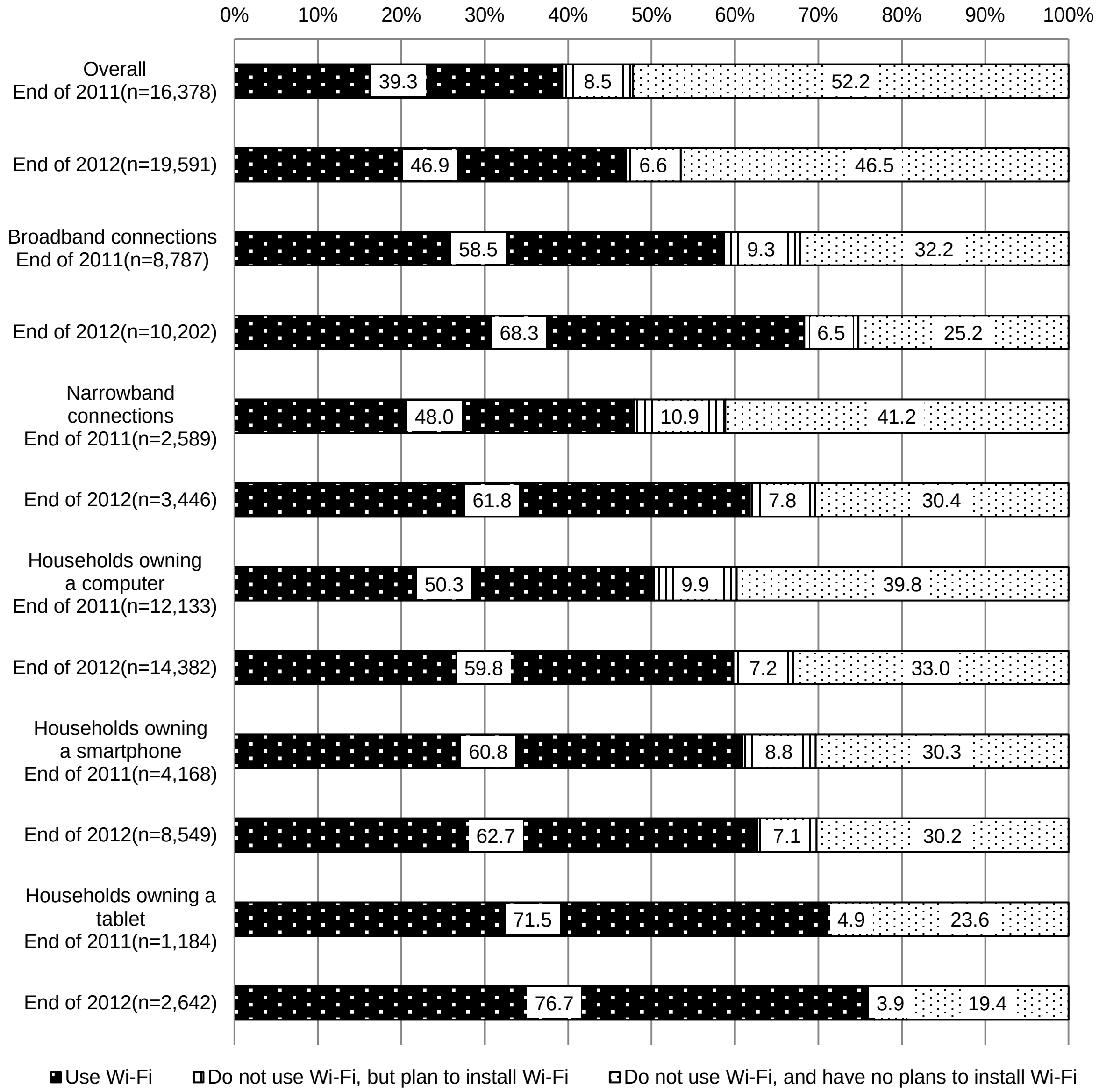
(6) Home Wi-Fi network usage (households)

A total of 46.9 percent of households used a home Wi-Fi network.

By Internet connection type, 68.3 percent of broadband-connected (DSL, optical fiber, etc.) households and 61.8 percent of narrowband-connected (dial-up, ISDN, etc.) households — i.e., more than 60 percent of both connection types — used a home Wi-Fi network.

Looking at the results by owned device, more than 60 percent of households owning a smartphone or tablet used a home Wi-Fi network.

Figure 1-14: Home Wi-Fi network usage

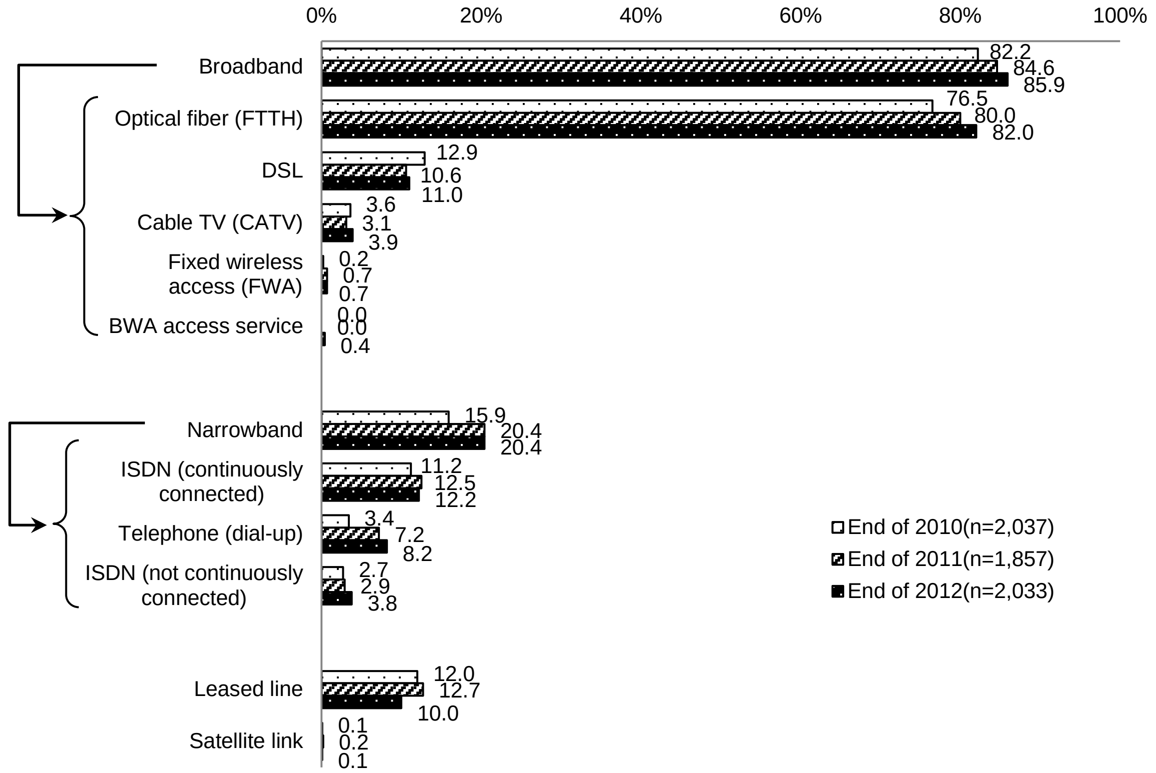


Notes:
1. Figures for home Wi-Fi networks include joint usage with wired networks.
2. Figures for broadband connections (DSL, optical fiber, etc.) include joint usage with narrowband connections.
3. Figures for narrowband connections (dial-up, ISDN, etc.) include joint usage with broadband connections.
4. Figures for broadband and narrowband connections cover households that use the Internet from computers at home. Other figures cover all households.

(7) Types of Internet connections (businesses)

85.9 percent of businesses, a 1.3 percentage point increase from the previous year, used a broadband connection to access the Internet from their premises. Those using optical fiber connections rose 2.0 percent to 82.0 percent, indicating that the move to broadband by businesses via optical fiber connections was progressing steadily.

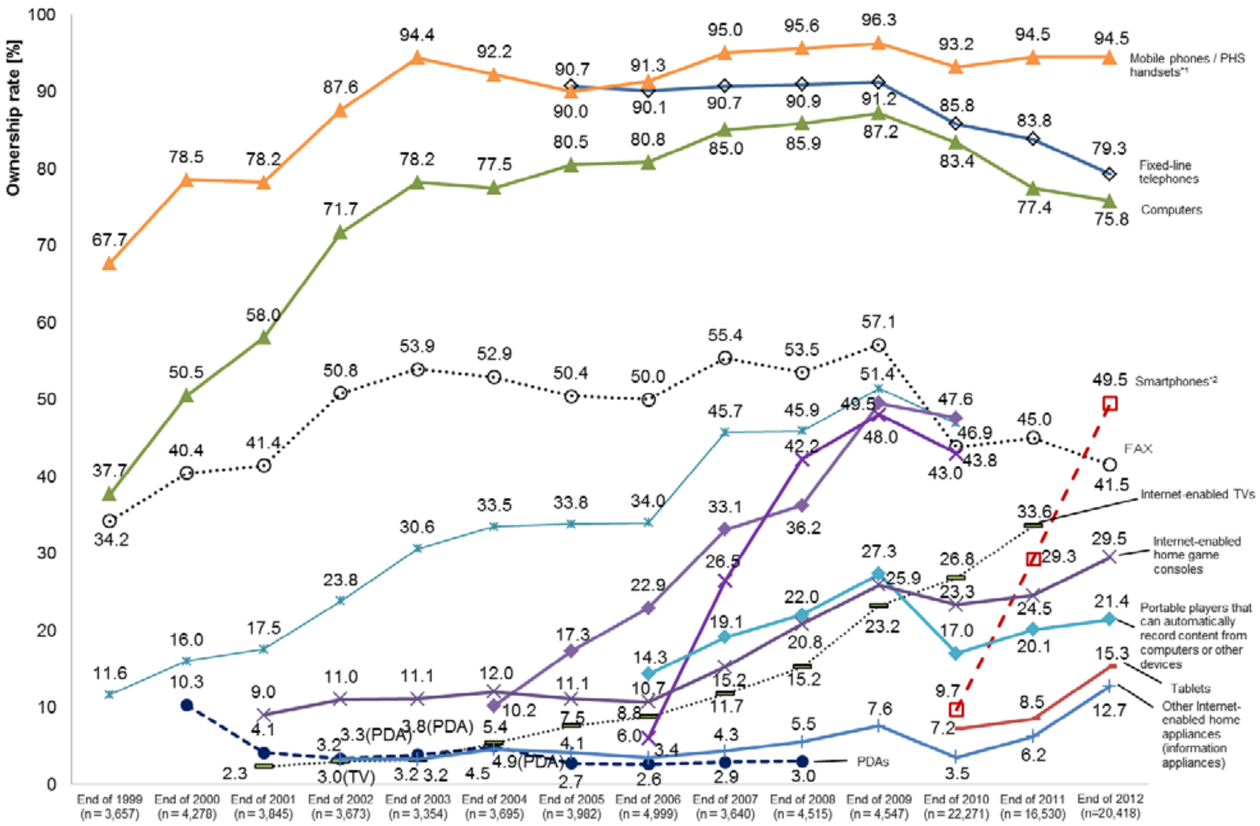
Figure 1-15: Internet connection types (businesses) (multiple responses accepted)



(8) Proliferation of common communication devices (households)

The household penetration rate of "mobile phones / PHS handsets" and "computers" was 94.5 percent and 75.8 percent respectively. "Smartphones," which were included in the "mobile phones / PHS handsets" category, have already proliferated rapidly, reaching a household penetration rate of 49.5 percent (an increase of 20.2 percentage points from the previous year).

Figure 1-16: Transitions in penetration rates of common communication devices (households)



Notes: 1. Figures for "mobile phones / PHS handsets" have included PDAs since the end of 2009 and smartphones since the end of 2010. The ownership rate in this category excluding smartphones is 81.2 percent.
2. Figures for "smartphones" have been taken from the "mobile phones / PHS handsets" category.
3. For comparison purposes between years, these calculations do include non-responses.

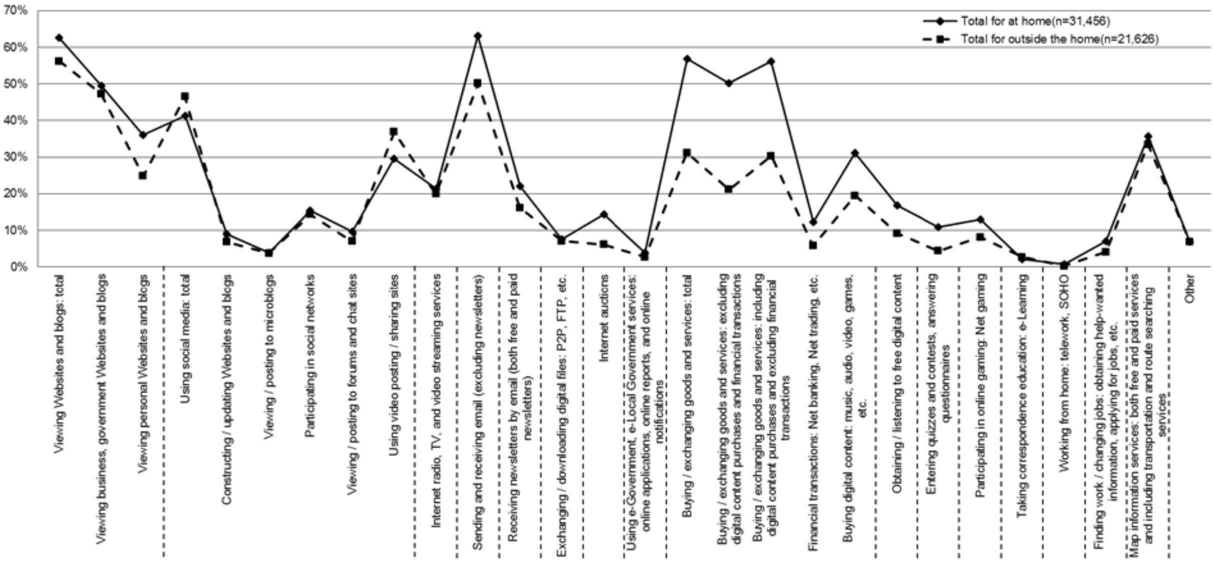
2. Current ICT Usage by Individuals

(1) Purposes of using the Internet

The most common use of the Internet when accessed at home was “sending and receiving email,” at 63.2 percent. This was followed by “viewing Websites and blogs”(62.6 percent) and “buying / exchanging goods and services” (56.9 percent).

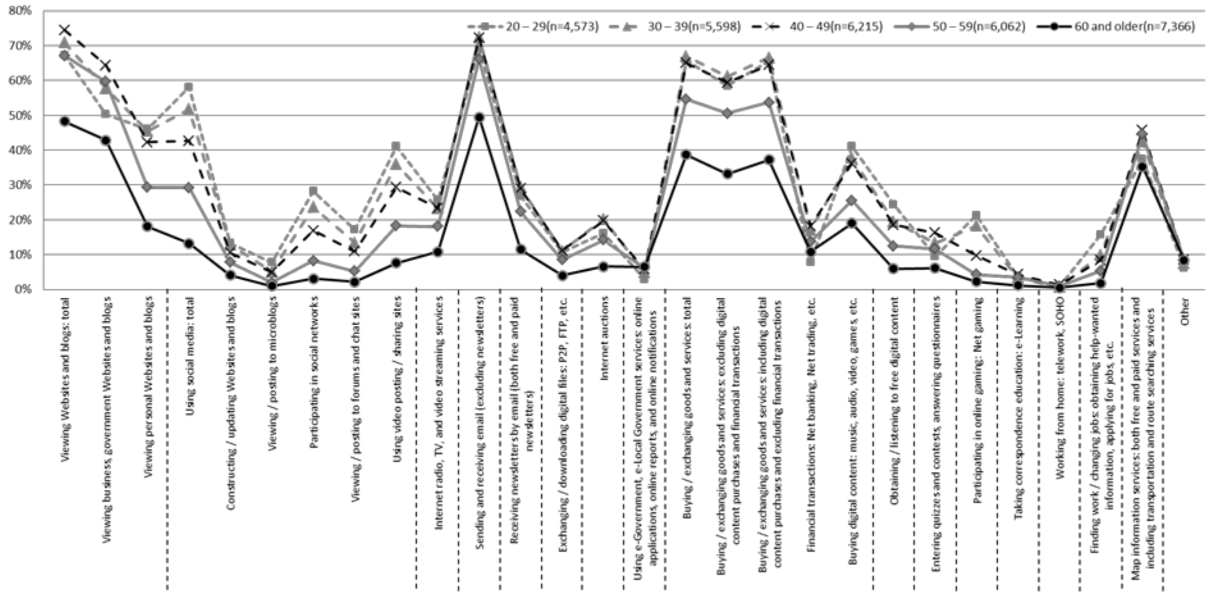
By age group, more than half of the 20 to 59 cohort used the Internet for “viewing Websites and blogs,” “sending and receiving email,” and “buying / exchanging goods and services.”

Figure 2-1: Internet functions and services used at home and outside the home — end of 2012 (individuals) (multiple responses accepted)



Note: Figures are the percentage of Internet users who use the respective function or service from either at home or outside the home.

Figure 2-2: Internet functions and services used — end of 2012 (adults) (multiple responses accepted)

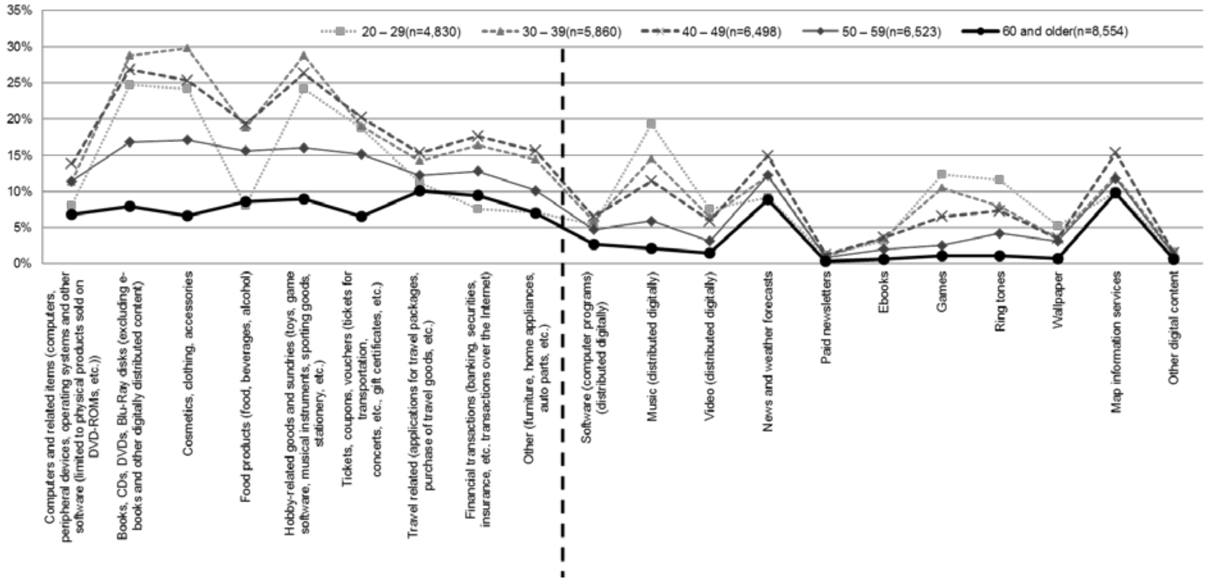


Note: Figures are the percentage of Internet users in the respective age group that have used the respective function or service.

(2) Goods and services bought / exchanged over the Internet

The goods and services bought or exchanged over the Internet varied between age groups. Younger cohorts were more likely to use the Internet to buy goods or services.

Figure 2-3: Goods and services bought over the Internet by age group — end of 2012 (adults) (multiple responses accepted)

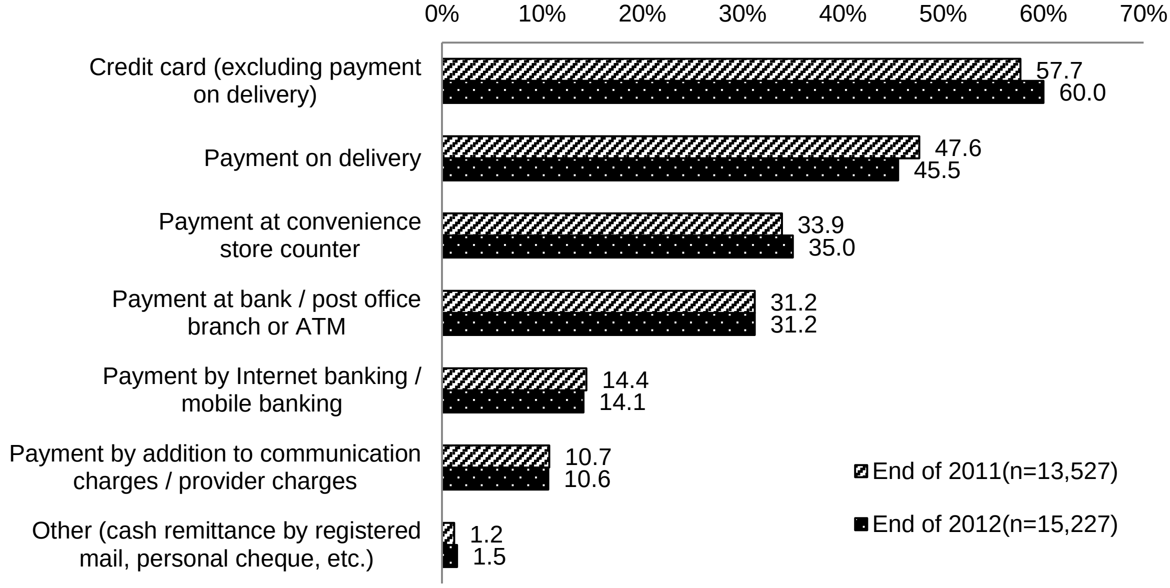


Note: Figures are the percentage of Internet users in the respective age group that have made a purchase in the respective category.

(3) Payment methods for purchases over the Internet

The most common payment method for purchases made over the Internet was “credit card,” at 60.0 percent. This was followed by “payment on delivery” (45.5 percent), “payment at convenience store counter” (35.0 percent), and “payment at bank / post office branch or ATM” (31.2 percent).

Figure 2-4: Payment methods for purchases over the Internet (multiple responses accepted)



(4) Largest Internet purchase

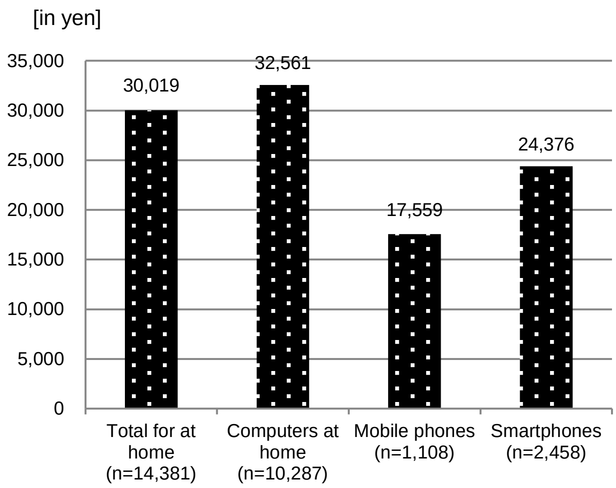
Among purchasers aged 15 and older of goods and services over the Internet, the largest purchase made in 2012 at home averaged over all devices was 30,019 yen.

By device at home, the average largest purchase made from “computers at home” was 32,561 yen. This was followed by “smartphones” at 24,376 yen and “mobile phones” at 17,559 yen.

The average largest purchase made from all devices outside the home was 26,236 yen. By device outside the home, the average largest purchase made from “computers outside the home” was 36,151 yen. This was followed by “smartphones” at 19,831 yen and “mobile phones” at 15,279 yen.

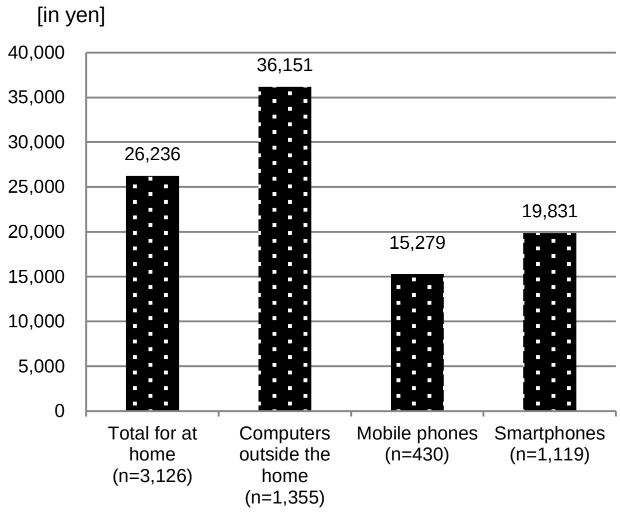
Average largest purchase made over the Internet at home and outside the home — end of 2012

Figure 2-5: (at home)



(Asked to respondents aged 15 and older who had made a purchase over the Internet at home)

Figure 2-6: (outside the home)



(Asked to respondents aged 15 and older who had made a purchase over the Internet outside the home)

(5) Usage of audio and video content

The most common audio and video content service used was “user-submitted video sharing services (on-demand format),” at 71.9 percent. This was followed by “broadcast program delivery services (on-demand format)” (24.6 percent).

Computers were the most common device used to access audio and video content, either at home or outside the home.

The most common purpose was “to watch videos by artists, etc., that I like,” at 64.4 percent. This was followed by “to watch popular / talked-about videos / programs” (50.5 percent).

Figure 2-7: Audio and video content services used — end of 2012 (multiple responses accepted)

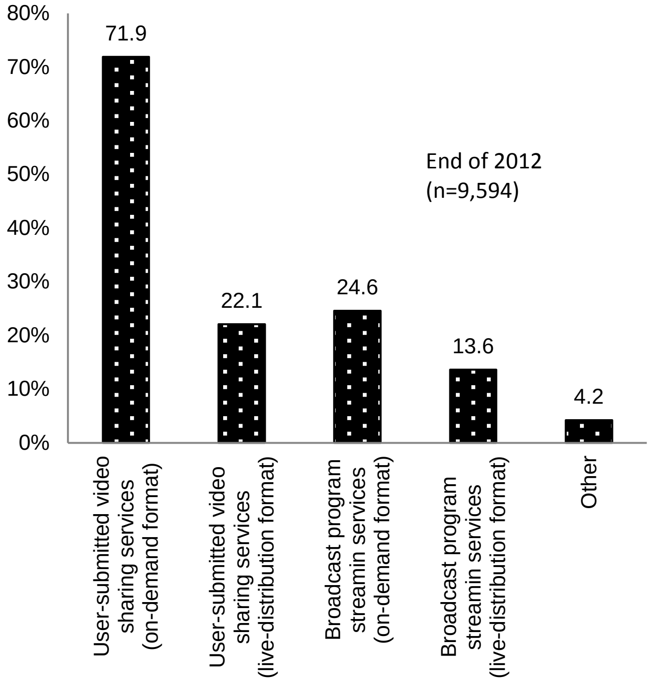


Figure 2-8: Devices used to access audio and video content — end of 2012 (overall figures include multiple responses)

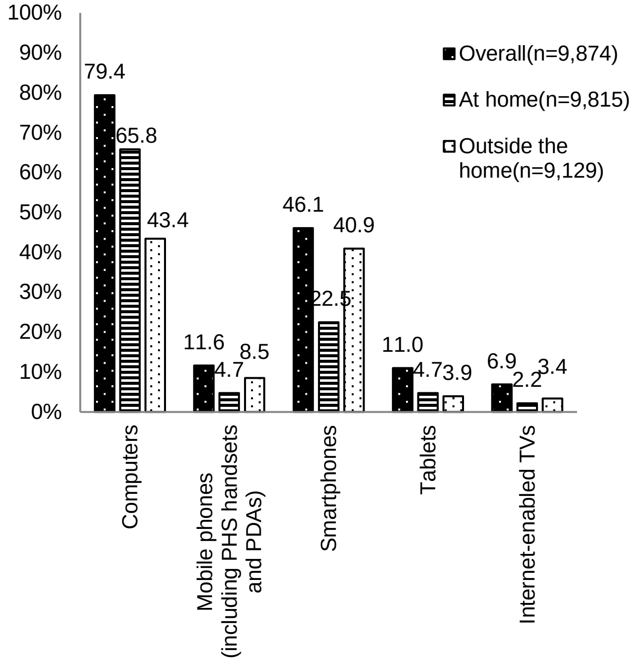


Figure 2-9: Frequency of audio and video content usage — end of 2012

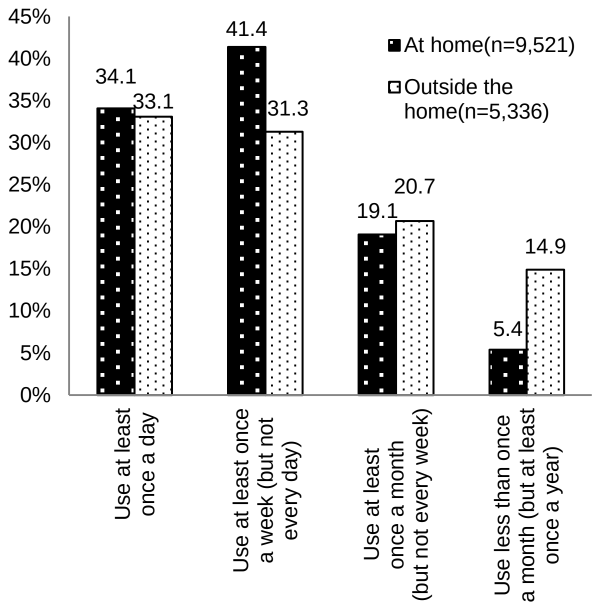
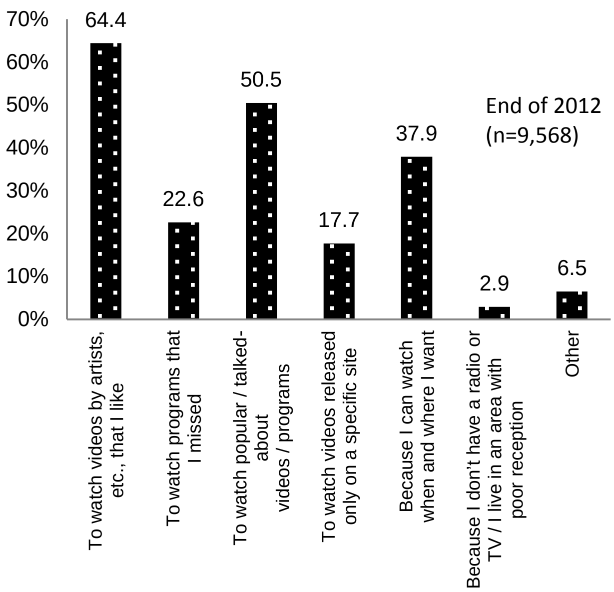


Figure 2-10: Purposes of audio and video content usage — end of 2012 (multiple responses accepted)

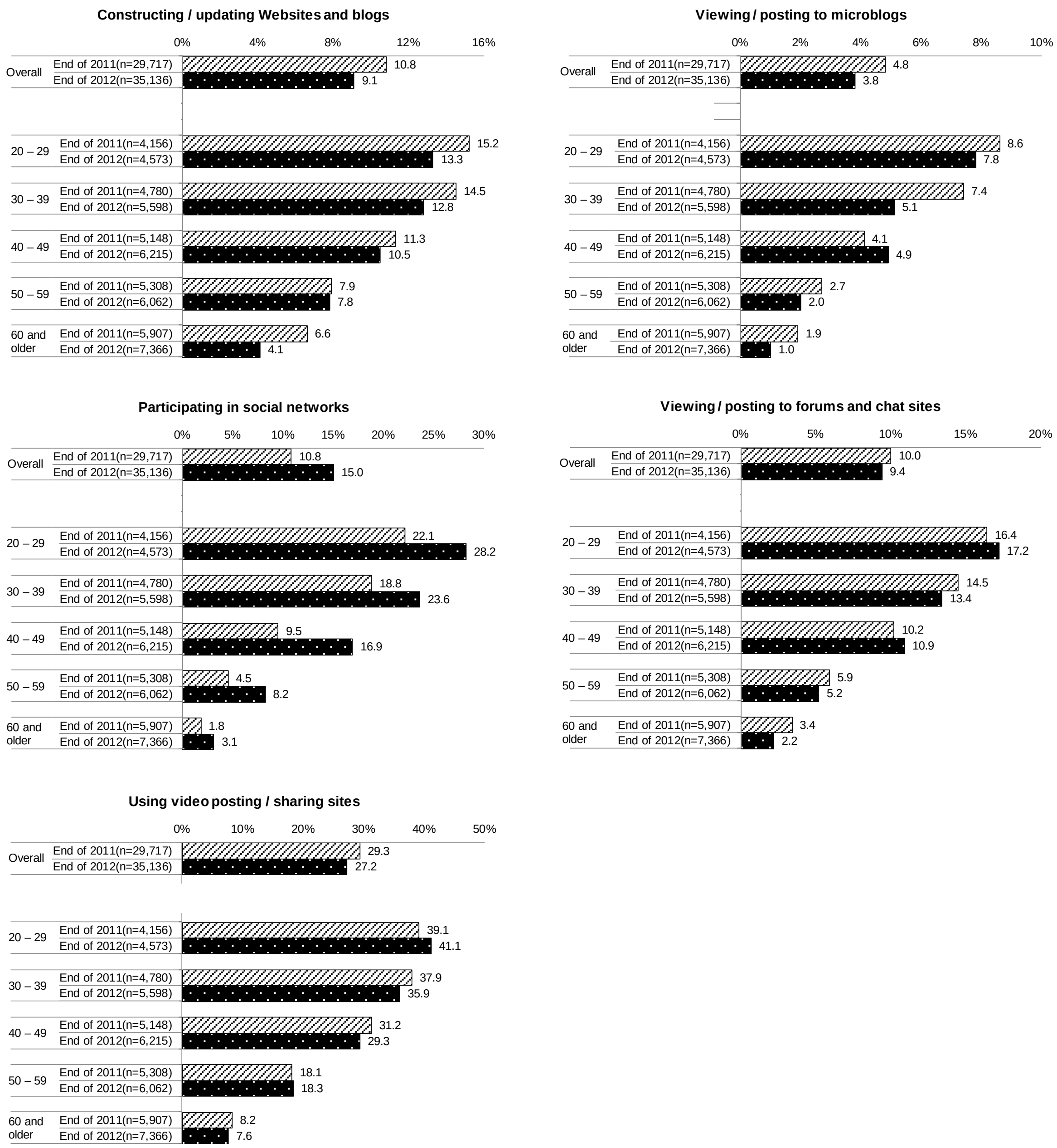


(6) Social media usage by individuals

The most common social media used by individuals was “video posting/sharing sites,” at 27.2 percent.

The rate of participation in social networks increased from the previous year in all age groups.

Figure 2-11: Social media usage by age group — (adults)



3. Current ICT Usage by Businesses

(1) Construction of company communication networks

Of all surveyed businesses, 89.1 percent had constructed a company communication network (either an intranet or an inter-company network).

The most common primary communication service used on company communication networks was “Internet VPN,” at 53.9 percent. This was followed by “IP-VPN” (41.7 percent) and “wide-area Ethernet” (32.7 percent).

Figure 3-1: Construction of company communication networks — end of 2012

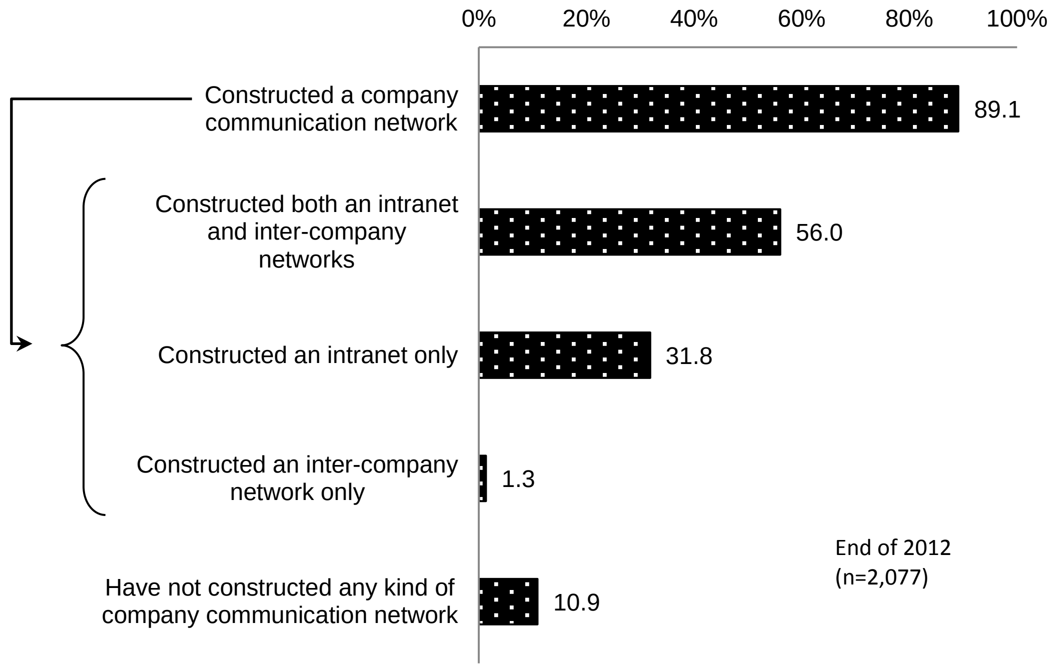
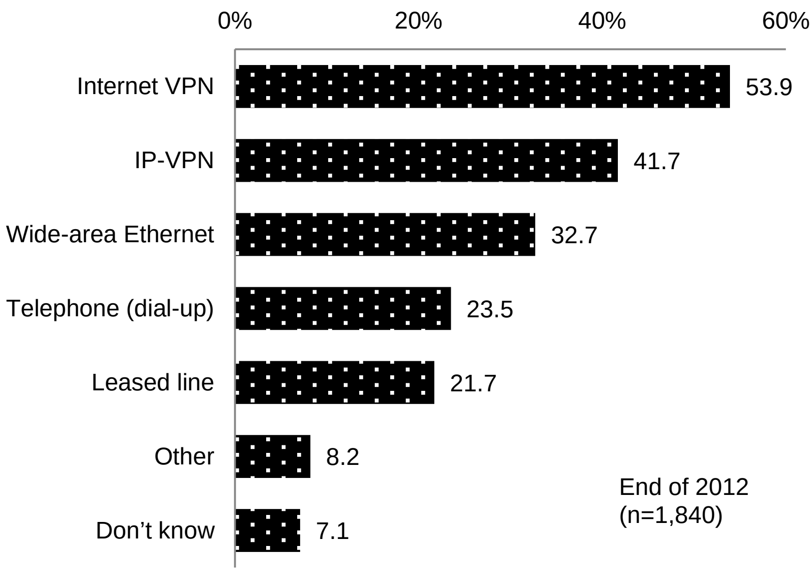


Figure 3-2: Primary communication services used on company communication networks — end of 2012 (multiple responses accepted)



(2) Social media usage by businesses

Of the surveyed businesses, 15.9 percent responded that they use social media in at least some of their operations. By industry, “service and other industries” had the highest social media usage rate, at 21.0 percent. This was followed by “wholesale / retail” (18.0 percent) and “financial / insurance” (17.6 percent).

Of businesses that said they use social media, the most common purpose / application was “present / promote products or events,” at 53.3 percent. This was followed by “provide periodic information” (44.6 percent) and “company profile / recruiting” (37.3 percent).

Figure 3-3: Social media usage by businesses

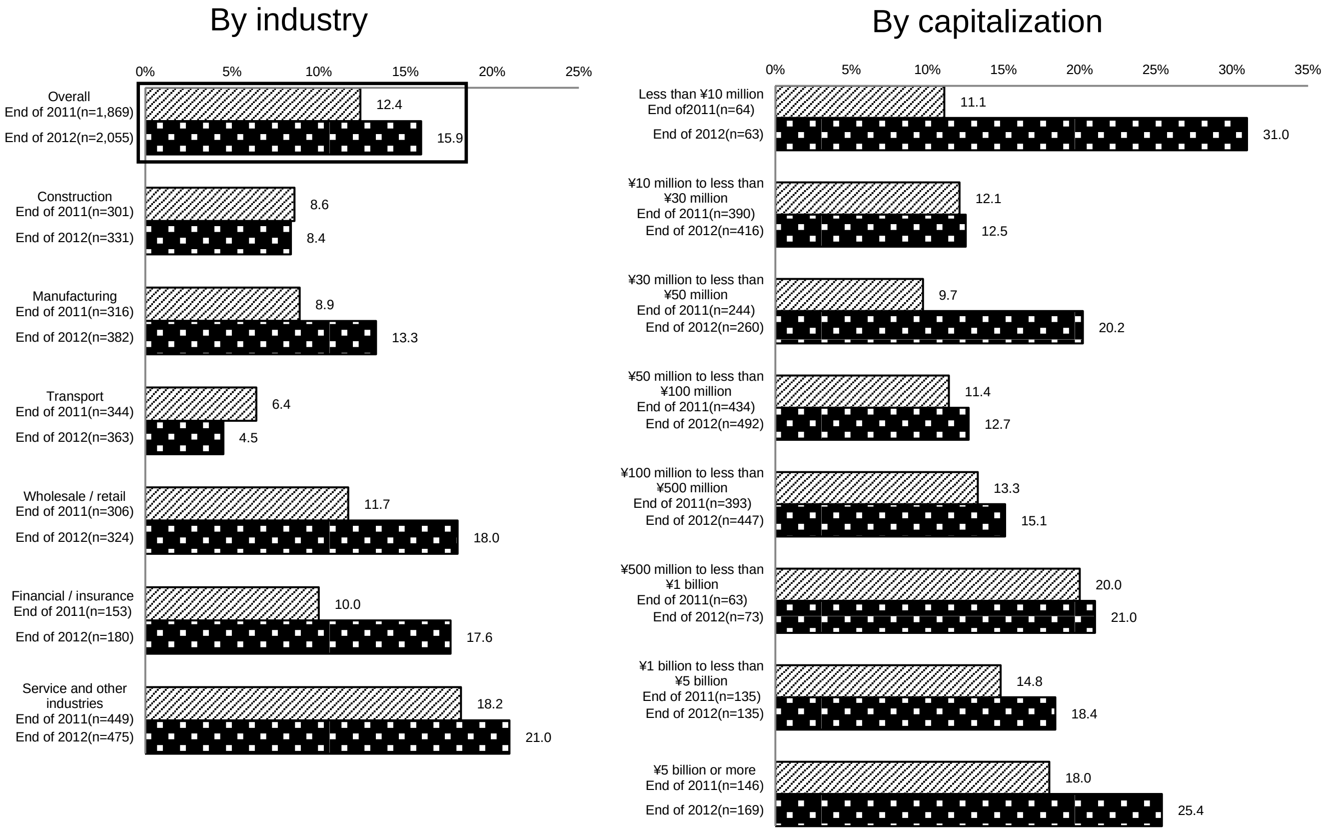
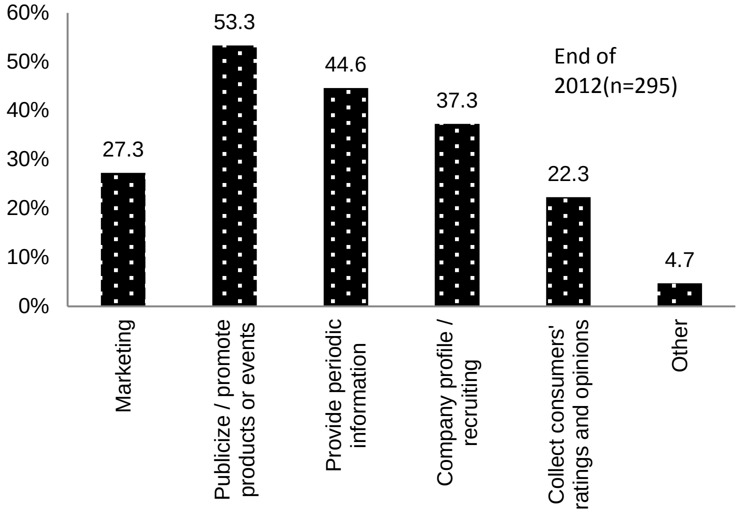


Figure 3-4: Purpose / application of social media by businesses — end of 2012 (multiple responses accepted)

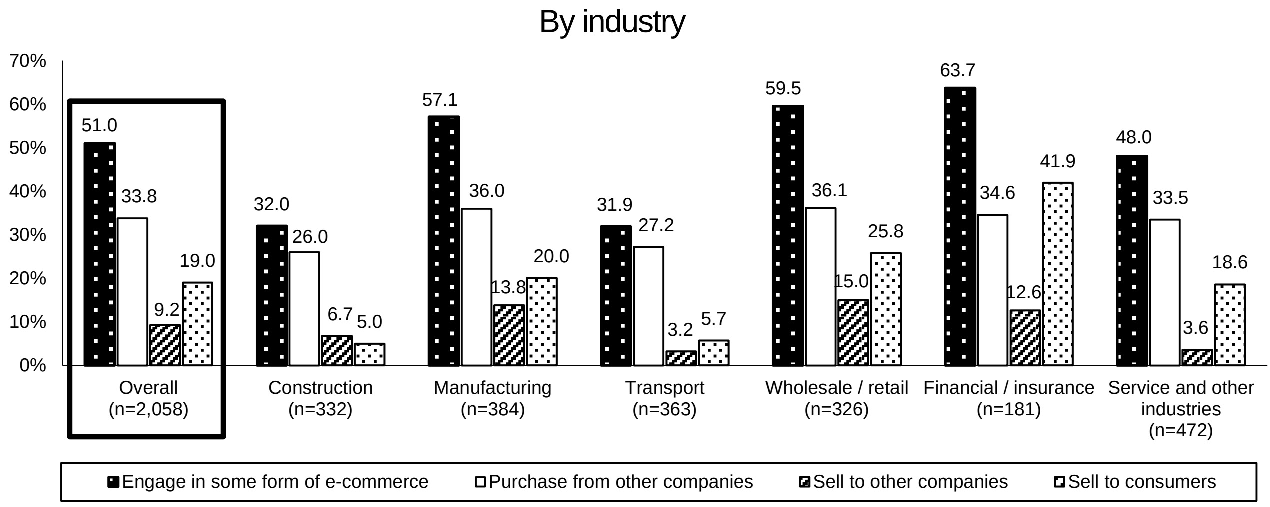


(3) E-commerce usage

51.0 percent of businesses engaged in e-commerce (purchasing or selling over the Internet). By industry, "financial / insurance" had the highest usage rate, at 63.7 percent. This was followed by "wholesale / retail" (59.5 percent) and "manufacturing" (57.1 percent).

Among businesses that used the Internet for sales, the most common Internet sales model was "e-store (own site)," at 65.2 percent. This was followed by "e-store (store in an e-mall)" (46.0 percent).

Figure 3-5: E-commerce usage by industry — end of 2012 (multiple responses accepted)



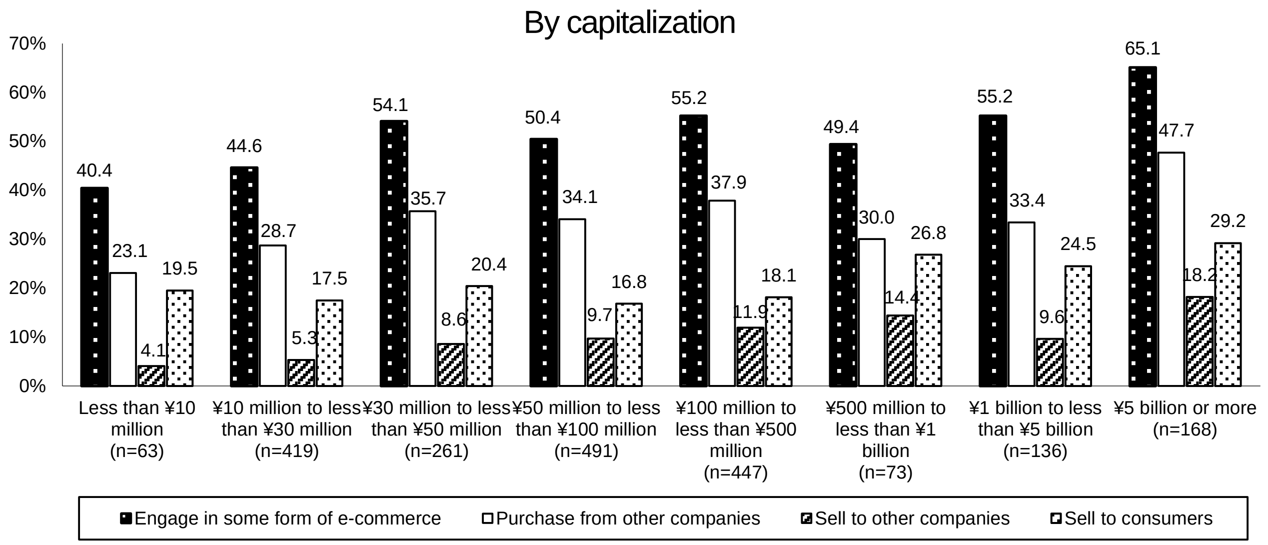
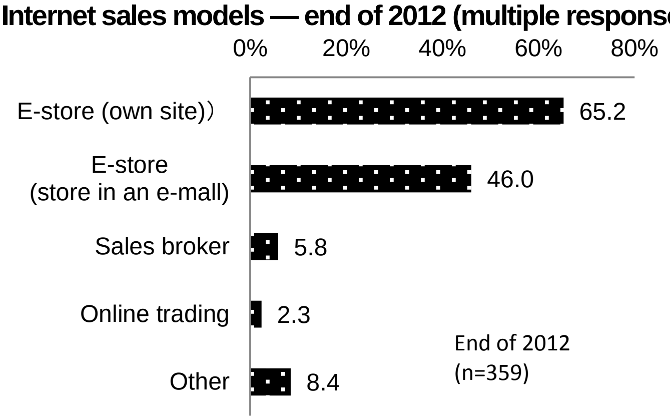


Figure 3-6: Internet sales models — end of 2012 (multiple responses accepted)



(4) Use of Internet advertising

Of the surveyed businesses, 27.0 percent advertise using the Internet. By industry, “financial / insurance” had the highest advertising rate, at 59.8 percent. This was followed by “service and other industries” (34.7 percent) and “wholesale / retail” (31.9 percent).

The most common type of Internet advertisement was “banner ads,” at 51.0 percent. This was followed by “newsletters” (37.5 percent) and “text ads” (30.7 percent).

Figure 3-7: Internet advertising usage — end of 2012

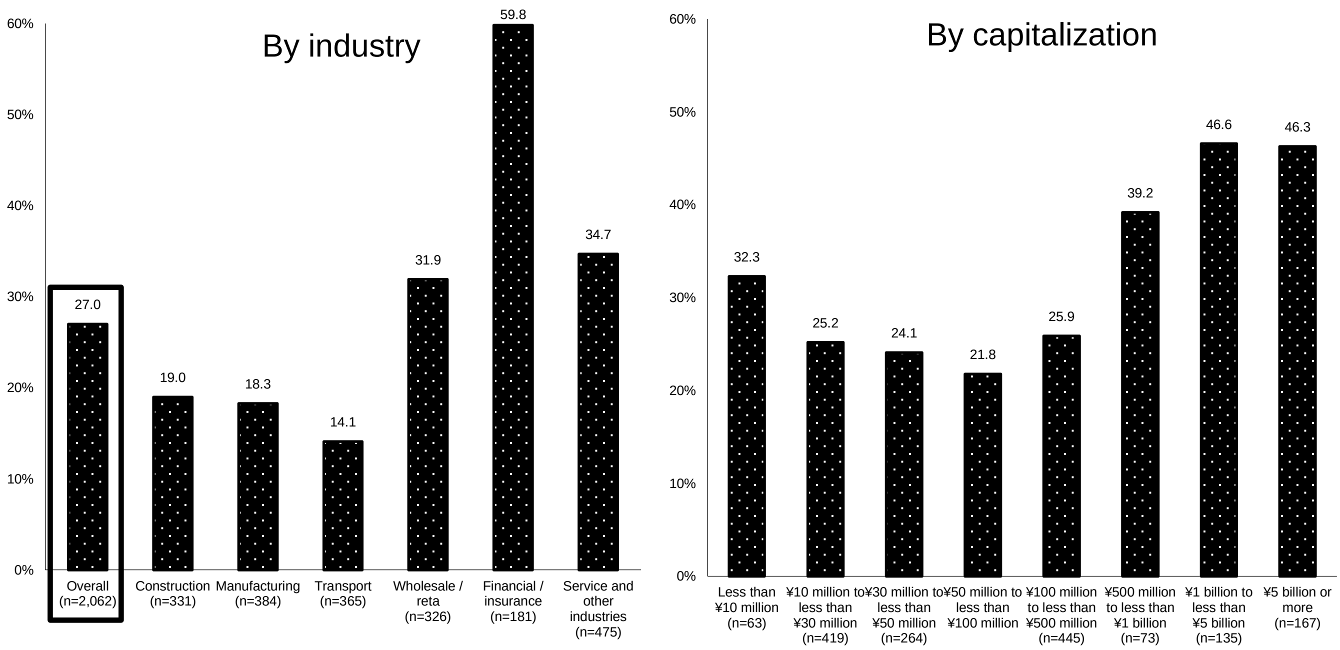
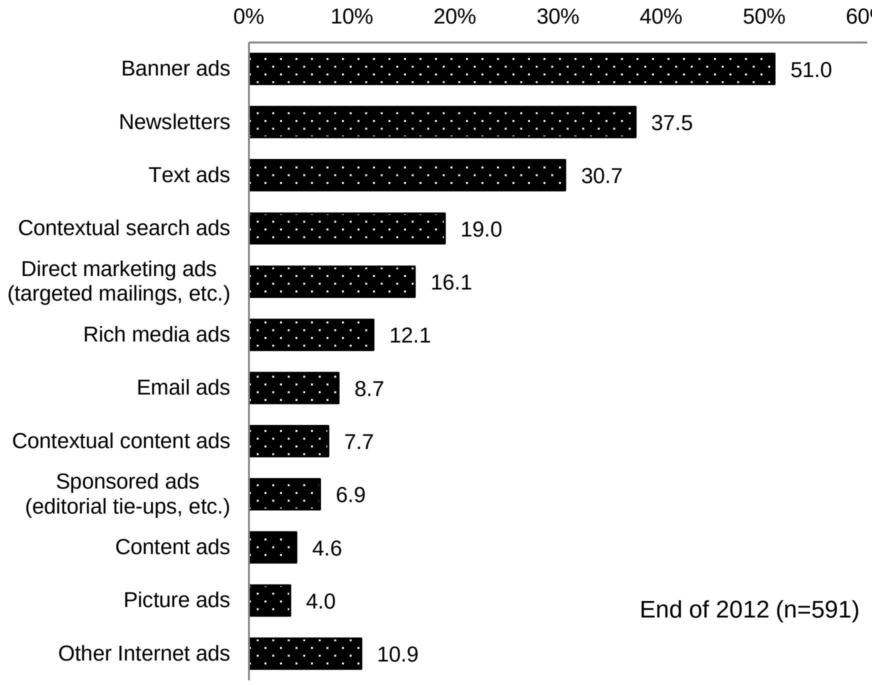


Figure 3-8: Types of Internet advertisements — end of 2012 (multiple responses accepted)



Notes:
1. Text ads are ads composed only of text.
2. Banner ads are images placed on Websites that advertise a different Website. When clicked, banner ads jump to the advertised Website.
3. Rich media ads are ads that use audio and images that move in response to mouse movements or display video with streaming technology.
4. Servers of contextual content ads analyze the context or keywords in the content on a Web page and display ads with the most relevance to the content.

(5) Adoption of ICT tools* using wireless communication technology

Of the surveyed businesses, 49.1 percent have adopted services, systems, or other ICT tools that use wireless communication technology. The most common tool was “contactless IC cards,” at 27.7 percent. This was followed by “network cameras, sensors, or other network-enabled devices” (26.9 percent).

Examining ICT tool adoption rates by industry found that “manufacturers” had the highest “RFID tag” adoption rate, at 10.4 percent, and that “financial / insurance” had the highest “contactless IC cards” and “network cameras, sensors, or other network-enabled devices” adoption rates, at 64.0 percent and 37.6 percent respectively. The transport industry had the highest “GPS, mobile phone, or other location devices” adoption rate, at 46.1 percent.

* This survey uses the term “ICT tools” as a general name for business tools equipped with next-generation communication devices, such as RFID tags, contactless IC cards, network cameras, sensors, or other network-enabled devices, and GPS, mobile phone, or other location devices.

Figure 3-9: Adoption of services or systems using ICT tools — end of 2012

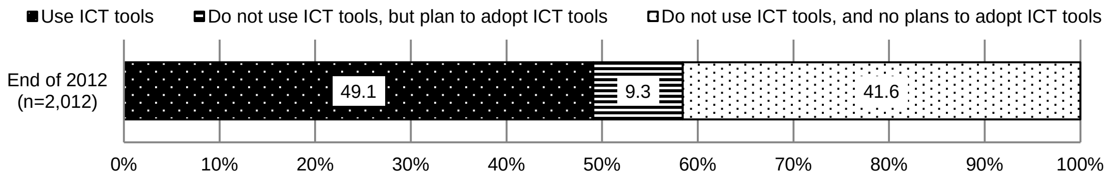
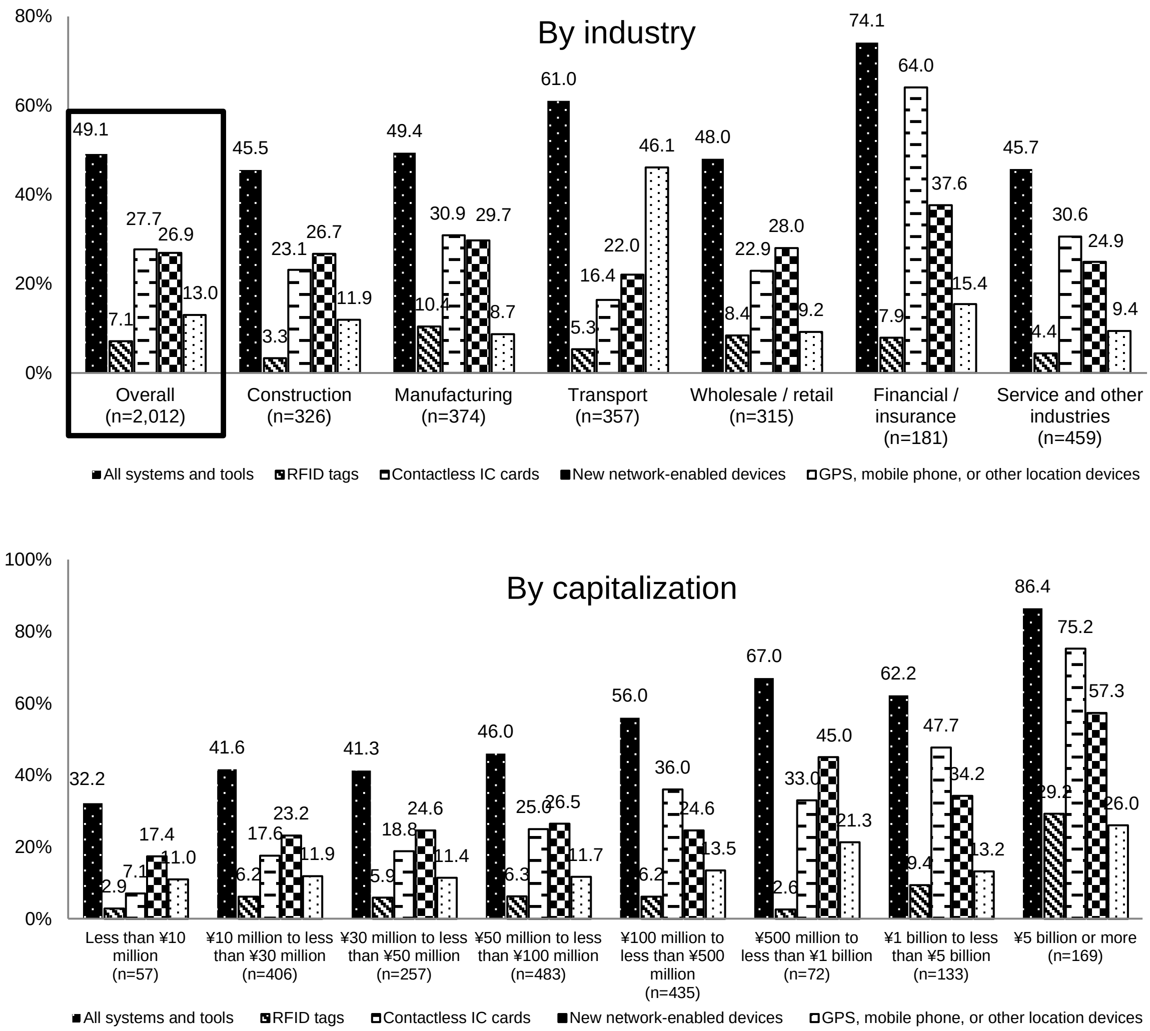


Figure 3-10: ICT tool adoption by industry and capitalization — end of 2012



(6) Cloud computing service usage

28.2 percent of businesses answered that they use cloud computing services (cloud services) in at least some of their operations. This was a 6.6 percentage point increase from the 21.6 percent figure at the end of 2011. The cloud service usage rate increased roughly in proportion to the capitalization size. More than half of businesses with 5 billion yen or more in capital used cloud services.

The most common reason quoted for not using cloud services was "not necessary," by 41.7 percent of non-users. This was followed by "information theft and other security concerns" (34.4 percent) and "considerable cost to retool existing systems when introducing cloud services" (22.8 percent).

Figure 3-11: Cloud service usage

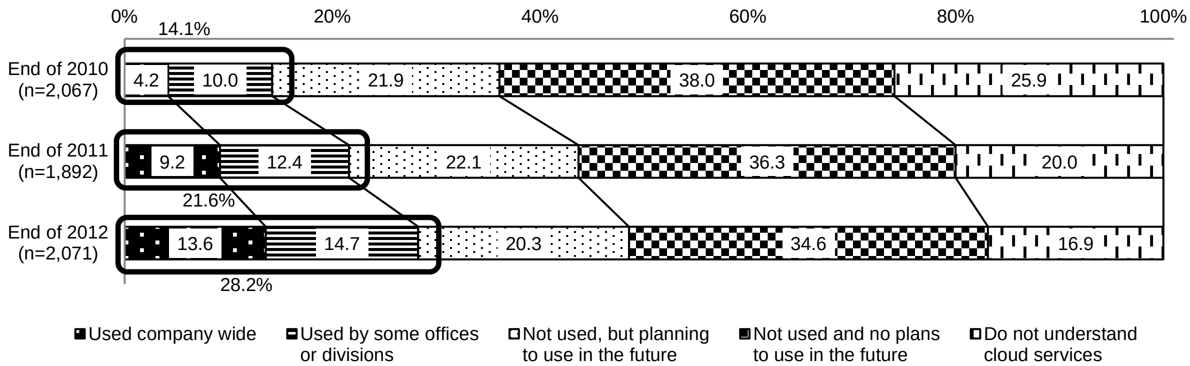
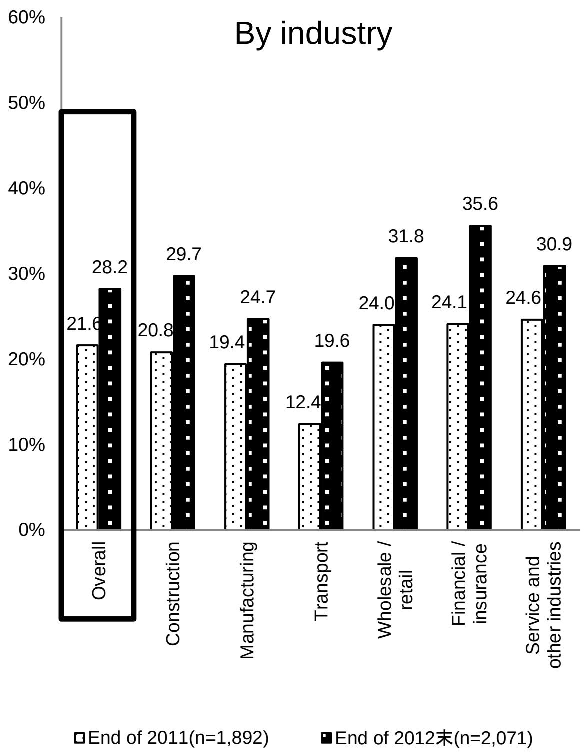


Figure 3-12: Cloud service usage by industry and capitalization



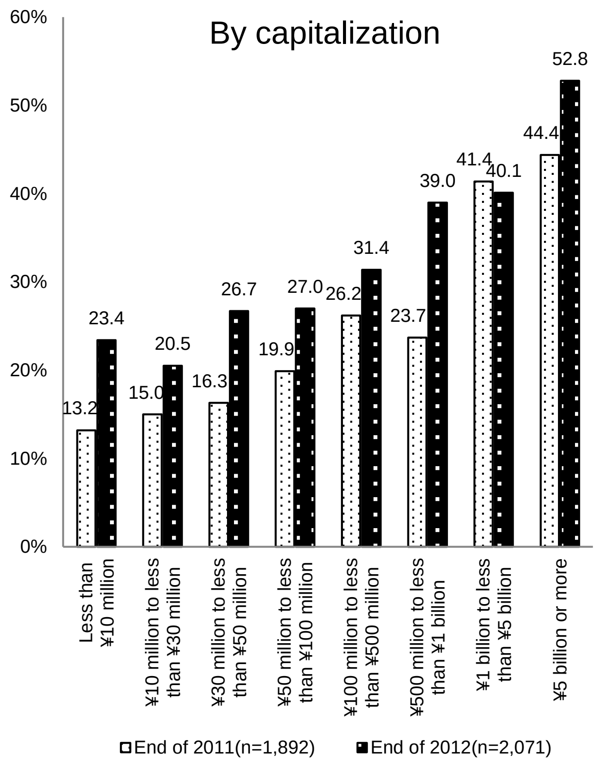


Figure 3-13: Cloud services used by businesses — end of 2012 (multiple responses accepted)

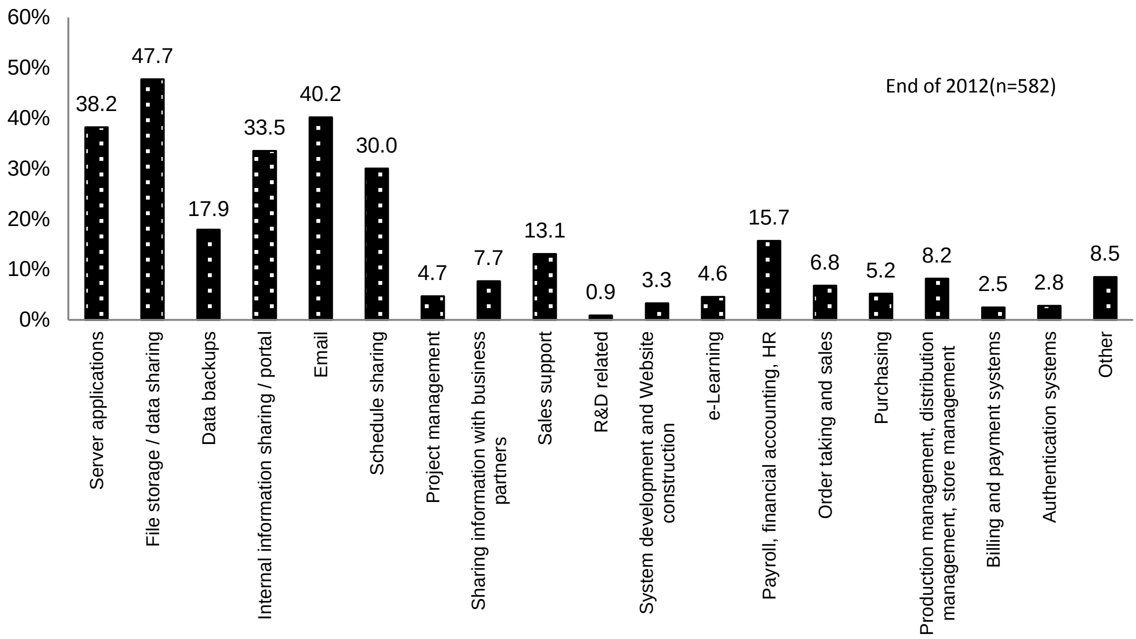
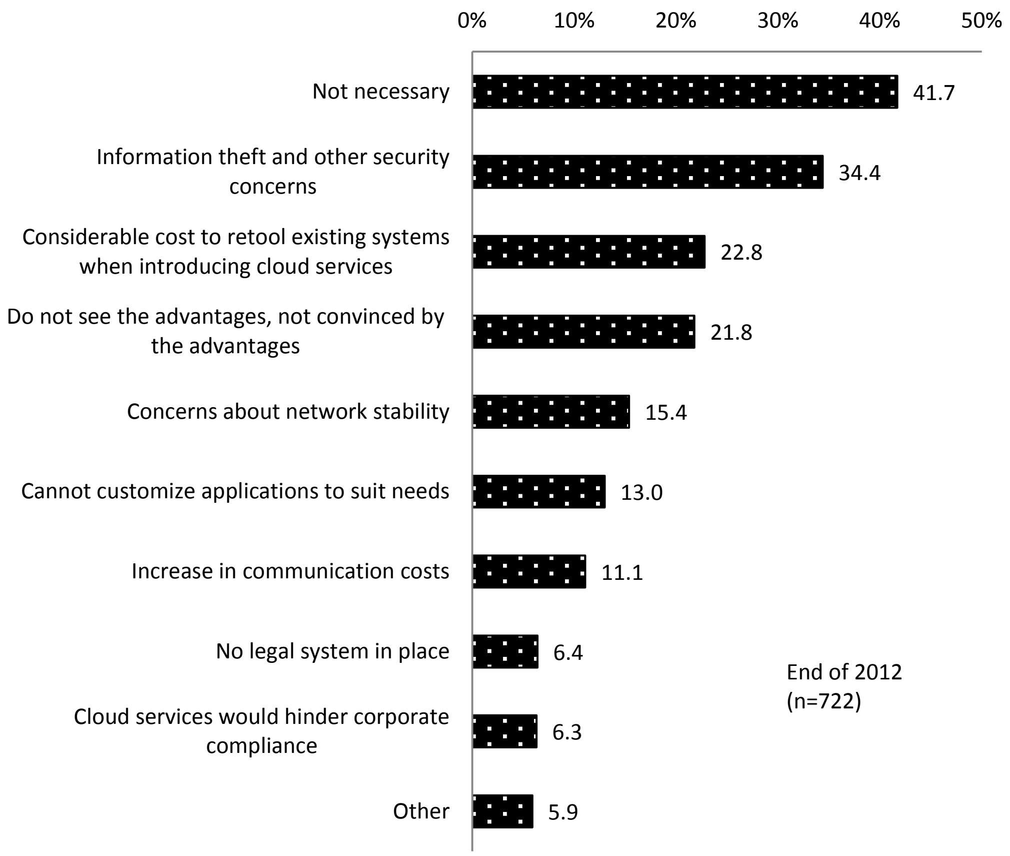


Figure 3-14: Reasons for not using cloud services — end of 2012 (multiple responses accepted)



(7) Telework

Of the surveyed businesses, 11.5 percent have introduced telework. The telework adoption rate increased roughly in proportion to the capitalization size. 35.1 percent of businesses with 5 billion yen or more in capital have introduced telework.

The most common percentage of telework employees was “less than 5 percent,” at 62.7 percent. This was followed by “10 percent to less than 30 percent” (17.3 percent) and “5 percent to less than 10 percent” (9.7 percent).

The highest ranked purpose for introducing telework was “raise efficiency (productivity) of routine business processes,” at 45.9 percent. This was followed by “reduce workers’ transportation times” (37.4 percent) and “prepare for business continuity in the event of emergencies (earthquakes, super-flu outbreaks, etc.)” (26.5 percent).

Among businesses that have introduced telework, more than 80 percent (81.0 percent) have found telework either “very beneficial” or “somewhat beneficial.”

Figure 3-15: Telework introduction — end of 2012

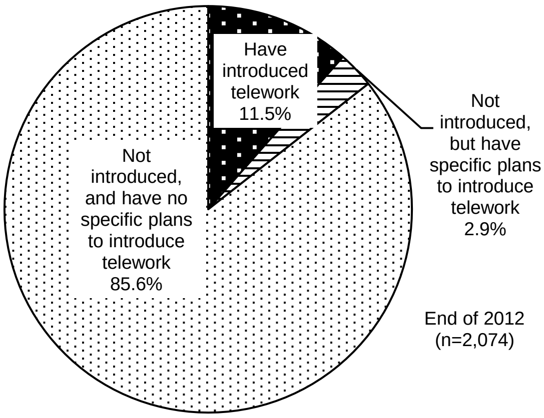


Figure 3-16: Telework introduction by capitalization — end of 2012

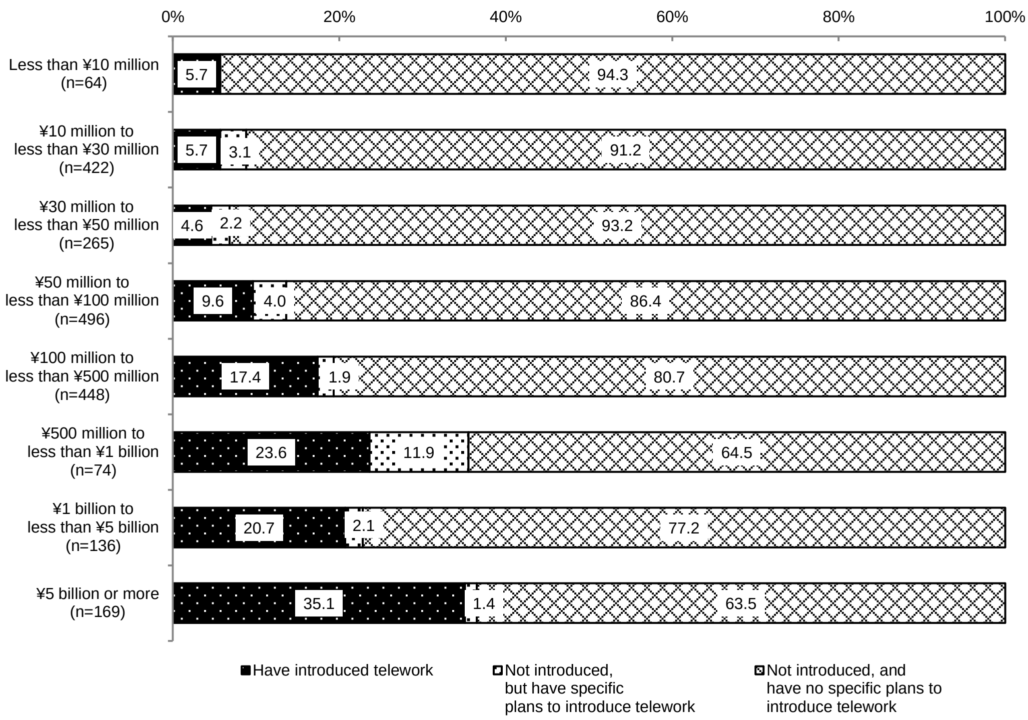


Figure 3-17: Percentage of employees using telework — end of 2012

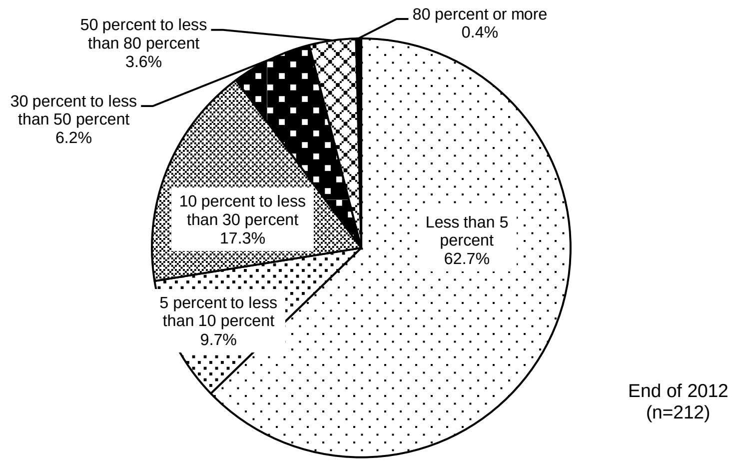


Figure 3-18: Purposes of introducing telework — end of 2012 (multiple responses accepted)

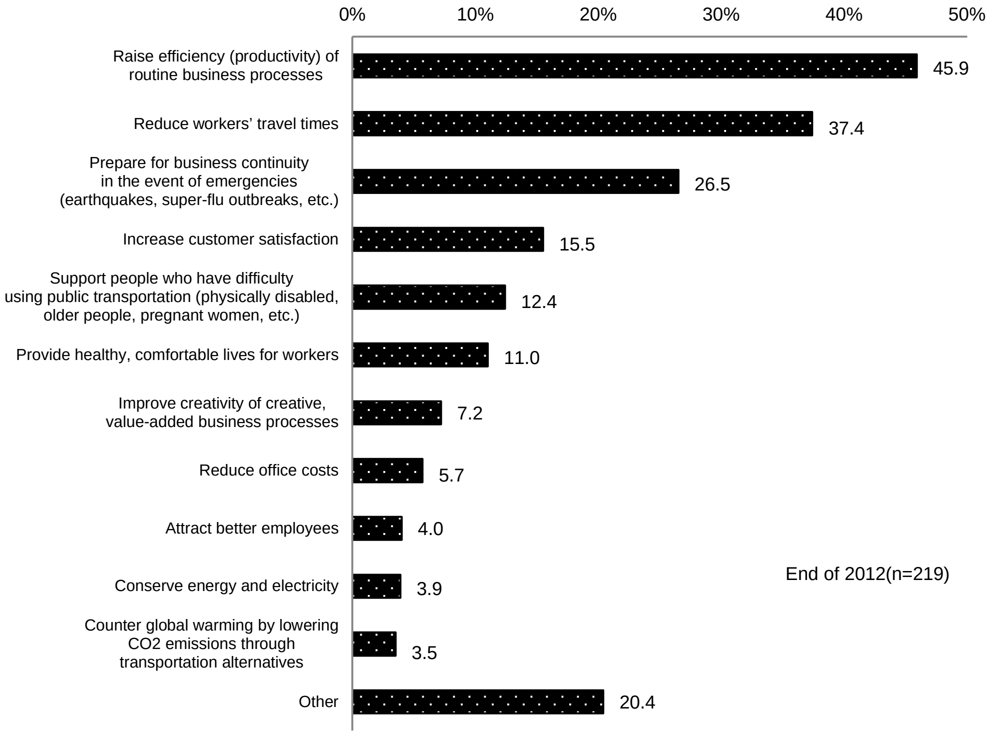
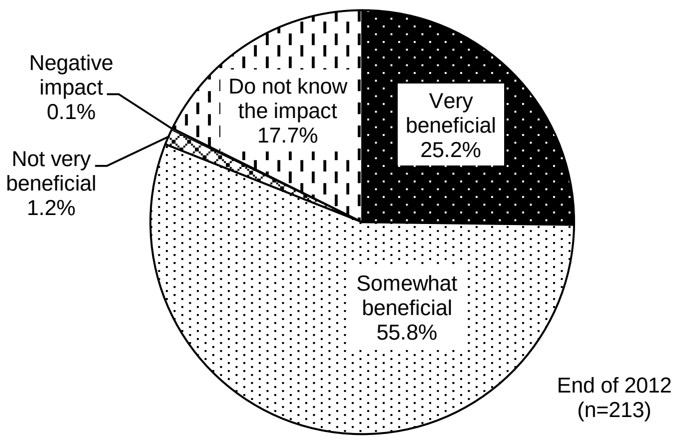


Figure 3-19: Telework benefits — end of 2012

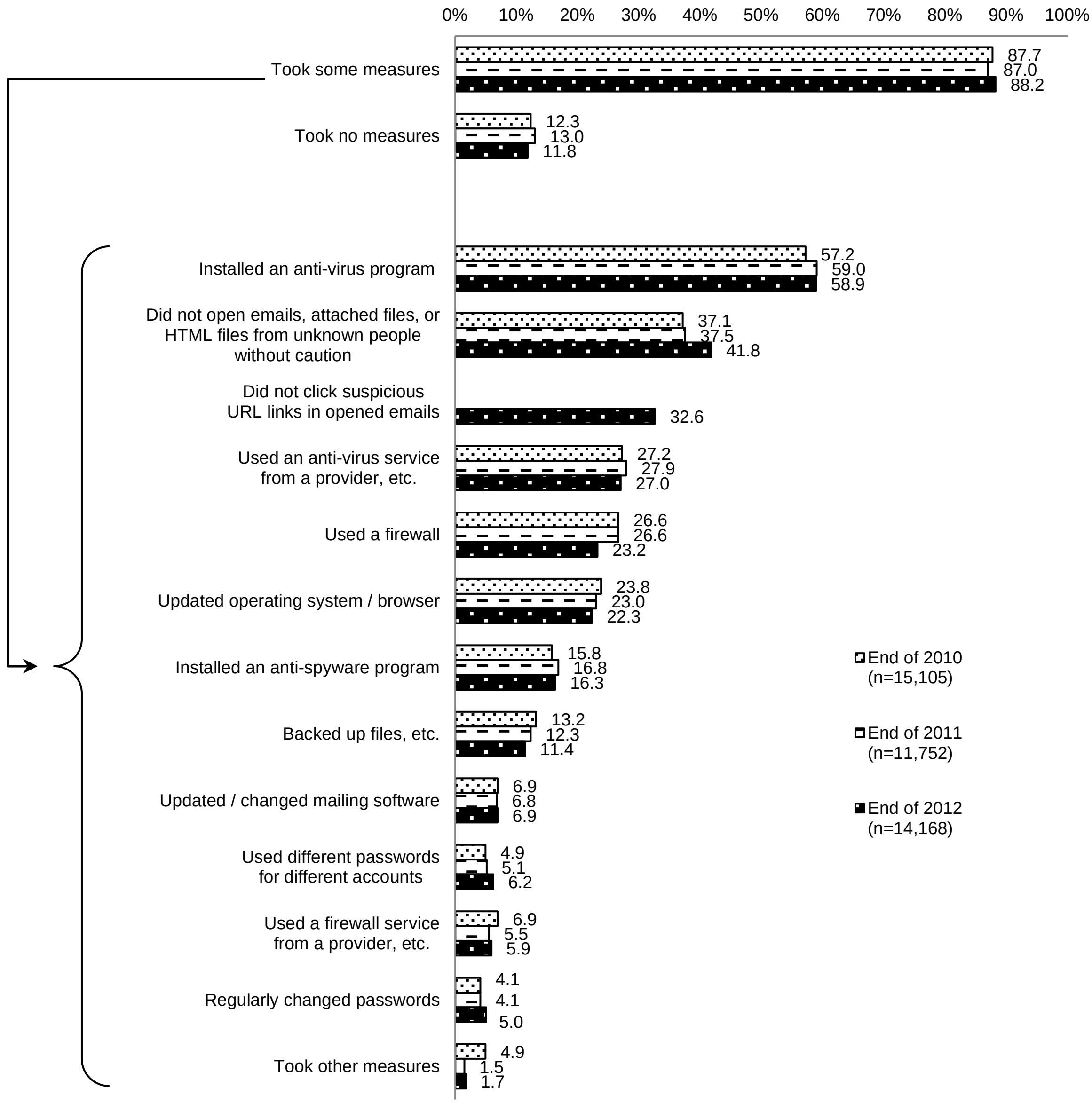


4. Safety and security efforts

(1) State of security measures (households)

Among households that use the Internet, 88.2 percent have taken some security measures. Of households that have taken some security measures, the most common security measure was “install an anti-virus program,” at 58.9 percent. This was followed by “do not open emails, attached files, or HTML files from unknown people without caution” (41.8 percent) and “do not click suspicious URL links in opened emails” (32.6 percent).

Figure 4-1: State of security measures (multiple responses accepted)



Note: “Did not click suspicious URL links in opened emails” was first added to the 2012 survey

(2) Concerns about using the Internet (households)

Almost half of households (48.7 percent) feel some concern — either “feel a little concerned” or “feel concerned” — about using the Internet.

Among households with concerns about using the Internet, the largest concern was “concern about virus infections,” at 72.2 percent. This was followed by “concern about personal information protection” (71.0 percent) and “unclear how far to take security measures” (59.3 percent). This suggests that most concerns are centered on information security.

Figure 4-2: Concerns about using the Internet (households)

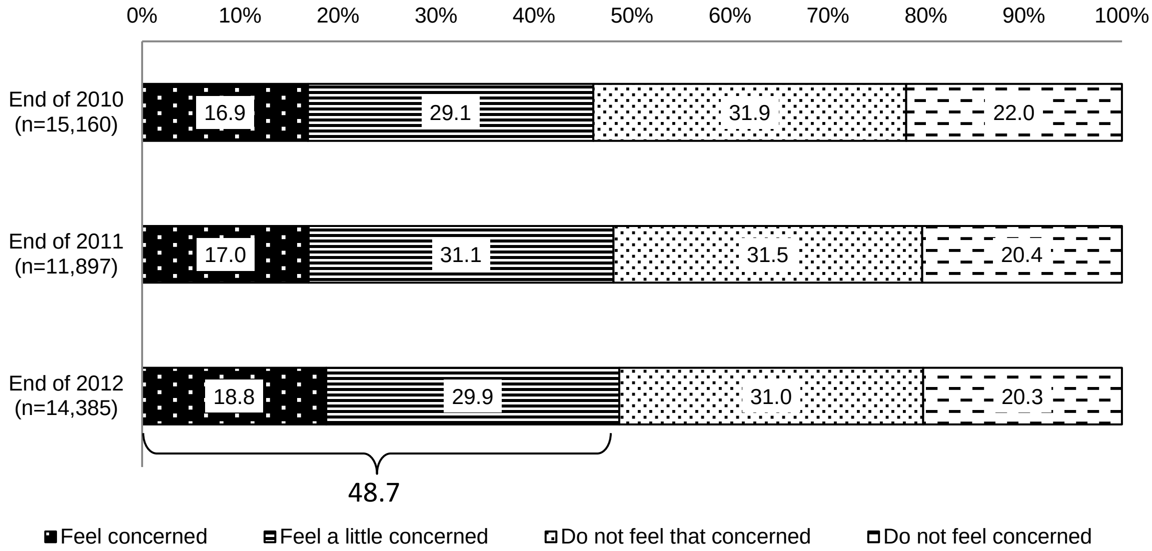
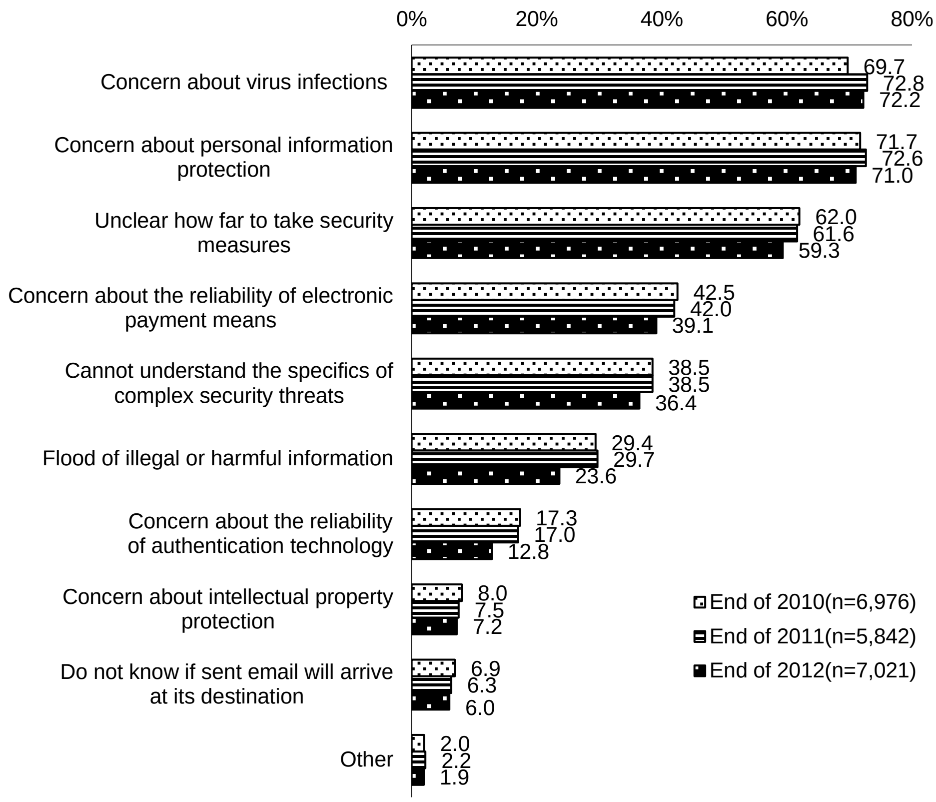


Figure 4-3: Types of concerns about using the Internet (households) (multiple responses accepted)



(3) Security breaches on company communication networks and security measures taken (businesses)

Among businesses that used information-communication networks, 38.5 percent reported some kind of loss resulting from a security breach in the past year. The most common security breach was "discovered or infected by a computer virus," at 37.4 percent.

Of businesses that use the Internet, intranets, or other networks, 97.8 percent have taken some security measures.

The most common security measure was "install anti-virus programs on computers and other devices (operating system, software, etc.)," at 88.3 percent. This was followed by "install anti-virus programs on servers" (67.7 percent) and "control access with IDs, passwords, etc." (53.4 percent).

Figure 4-4: Security breaches in the past year on company communication networks

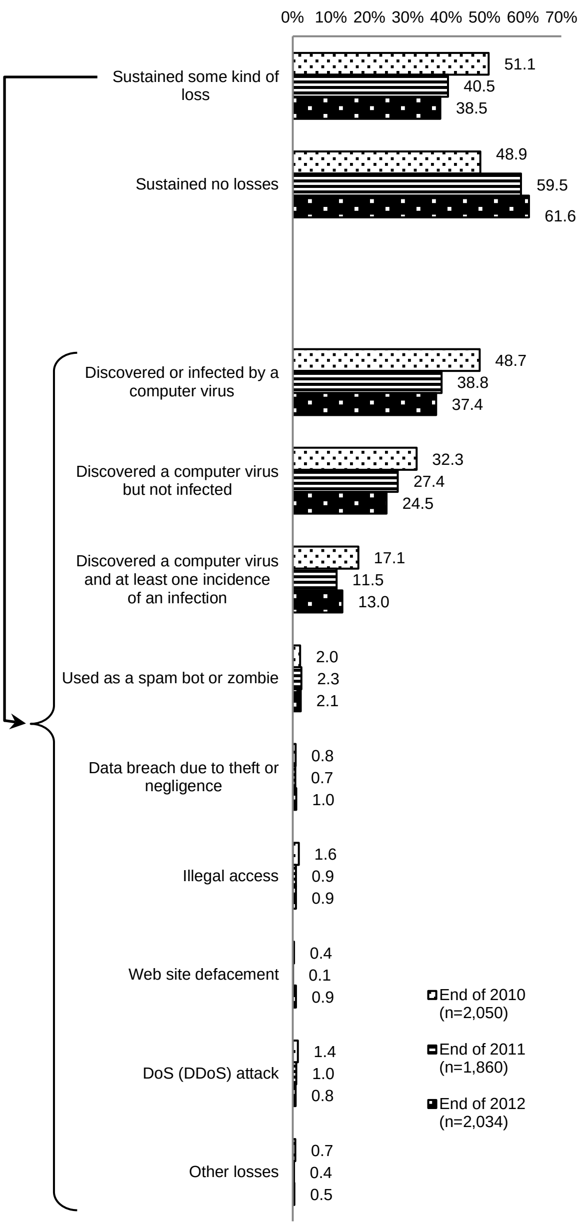
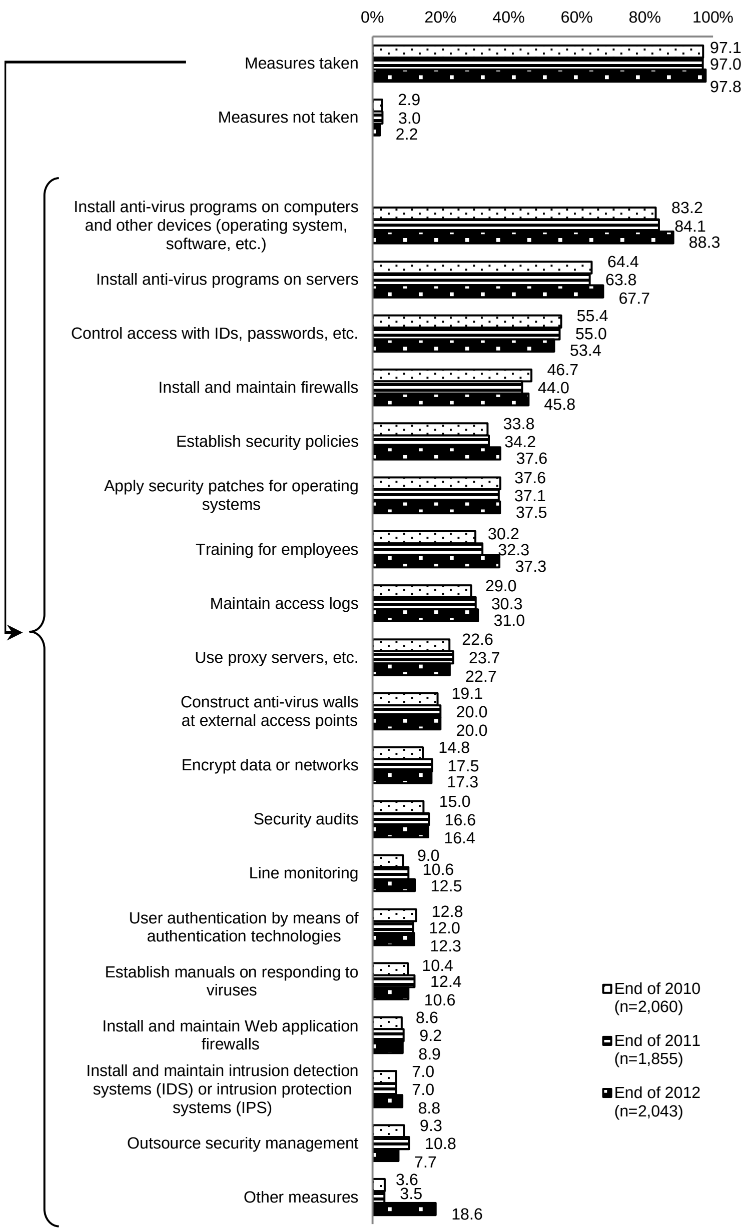


Figure 4-5: State of security measures



(4) Targeted email losses and security measures taken (businesses)

14.7 percent of businesses reported detecting traces of targeted emails in the past year. Of these, 1.3 percent experiences at least one incidence of a virus infection.

The most common security measure was "install anti-virus programs on computers and other devices (operating system, software, etc.)," at 67.4 percent. This was followed by "install anti-virus programs on servers" (51.9 percent) and "apply security patches for operating systems" (29.8 percent).

Figure 4-6: Losses from targeted emails — end of 2012

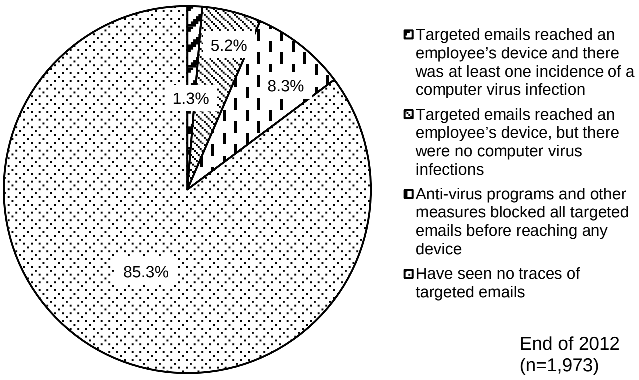
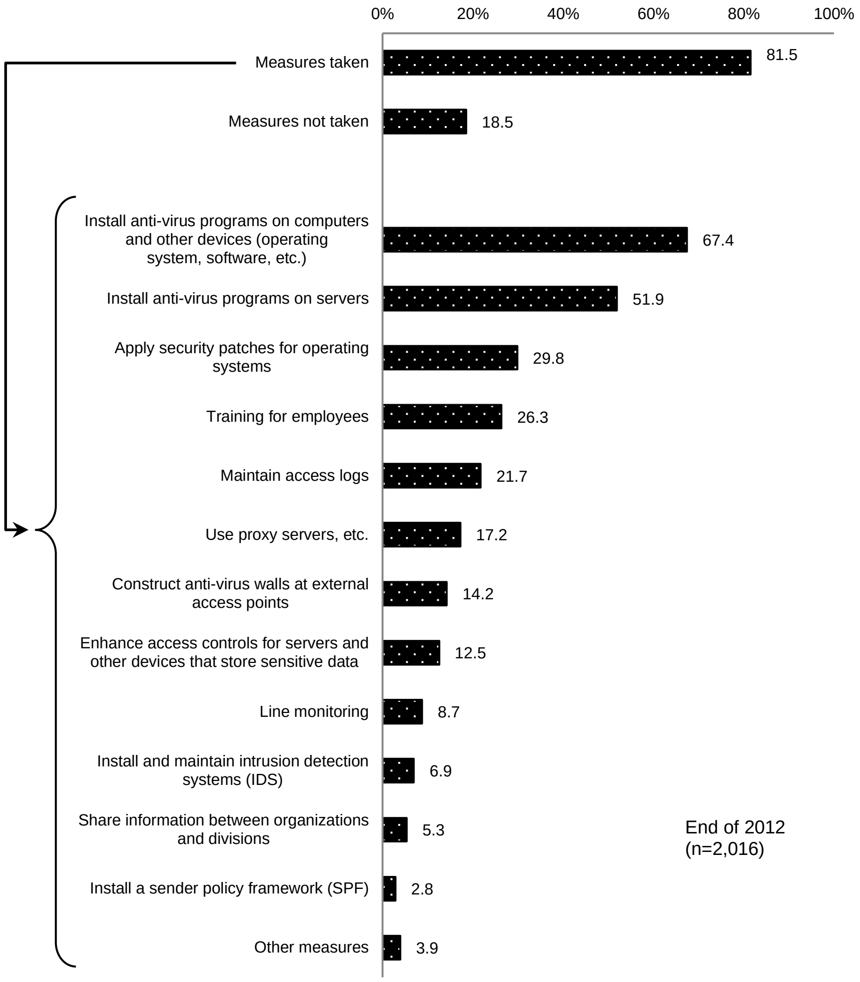


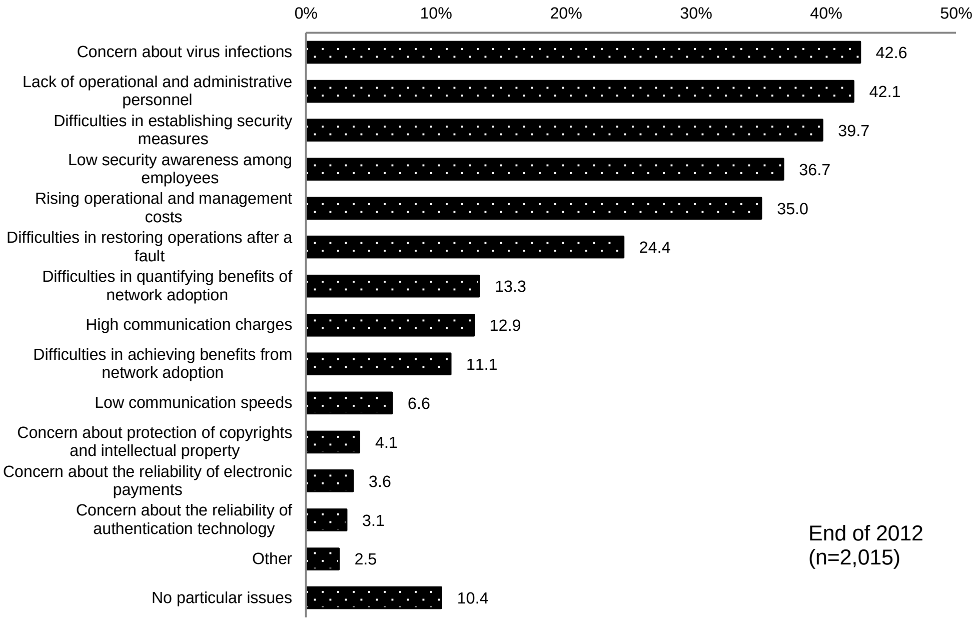
Figure 4-7: Security measures against targeted emails — end of 2012 (multiple responses accepted)



(5) Issues associated with Internet, intranets, and other network usage (businesses)

The most common issue associated with Internet, intranets, and other network usage was "concern about virus infections," at 42.6 percent. This was followed by "lack of operational and administrative personnel" (42.1 percent) and "difficulties in establishing security measures" (39.7 percent).

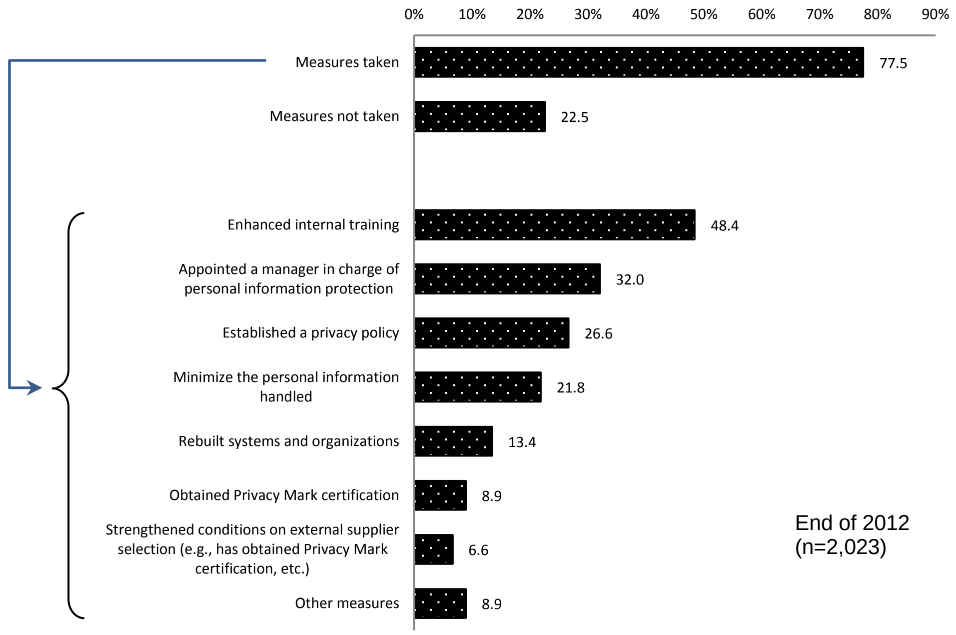
Figure 4-8: Issues associated with Internet, intranets, and other network usage — end of 2012 (businesses) (multiple responses accepted)



(6) State of personal information protection measures (businesses)

Among the surveyed businesses, 77.5 percent have taken some personal information protection measures. The most common measure was "enhanced internal training," at 48.4 percent. This was followed by "appointed a manager in charge of personal information protection" (32.0 percent) and "established a privacy policy" (26.6 percent).

Figure 4-9: State of personal information protection measures — end of 2012 (businesses) (multiple responses accepted)

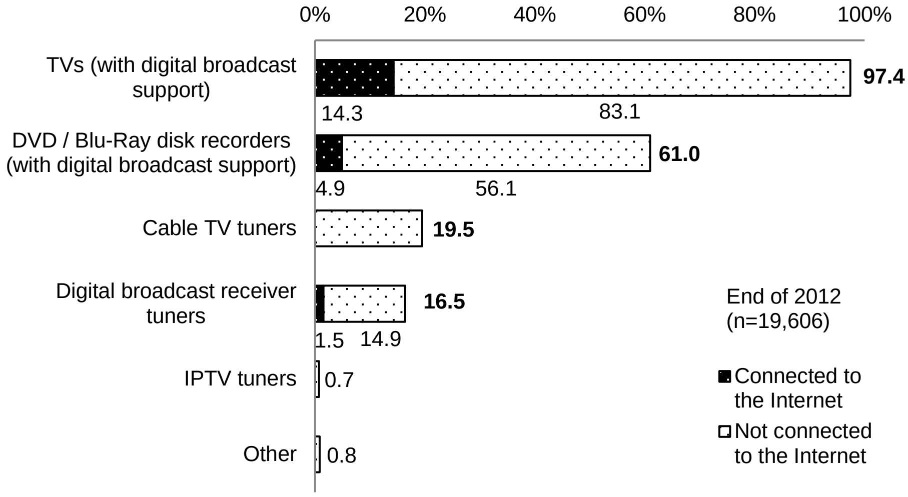


5. Usage of Digital Television Broadcasting

(1) Ownership of digital TV broadcast receivers (households)

Ownership of TVs that support digital broadcasts among households was 97.4 percent. Of these, 14.3 percent were connected to the Internet.

Figure 5-1: Ownership of digital TV broadcast receivers — end of 2012 (households)



(2) Data broadcast usage (households)

70.1 percent of households used data broadcasts in the past year. This percentage rose to 81.1 percent in households headed by someone between 40 and 49 and to 78.3 percent in households headed by someone between 30 and 39.

The most common use of data broadcasts was "obtain news, weather, transportation, and emergency information," at 86.8 percent. This was followed by "obtain information related to the current program" (35.1 percent). Households headed by a younger person made more use of data broadcasts for "participate in quizzes, questionnaires, and other program projects."

Figure 5-2: Data broadcast usage — end of 2012 (households)

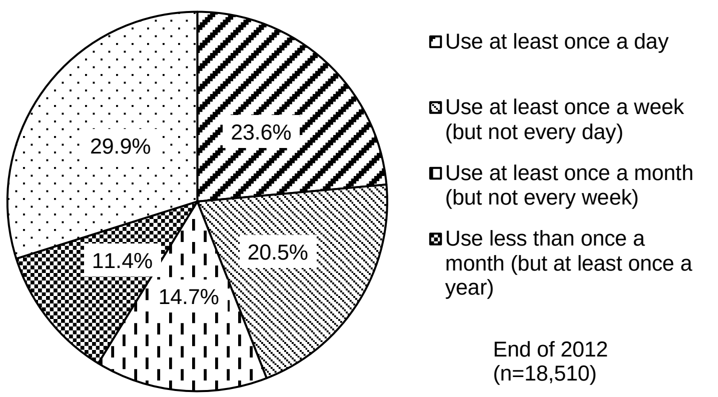


Figure 5-3: Data broadcast usage by age of household head — end of 2012

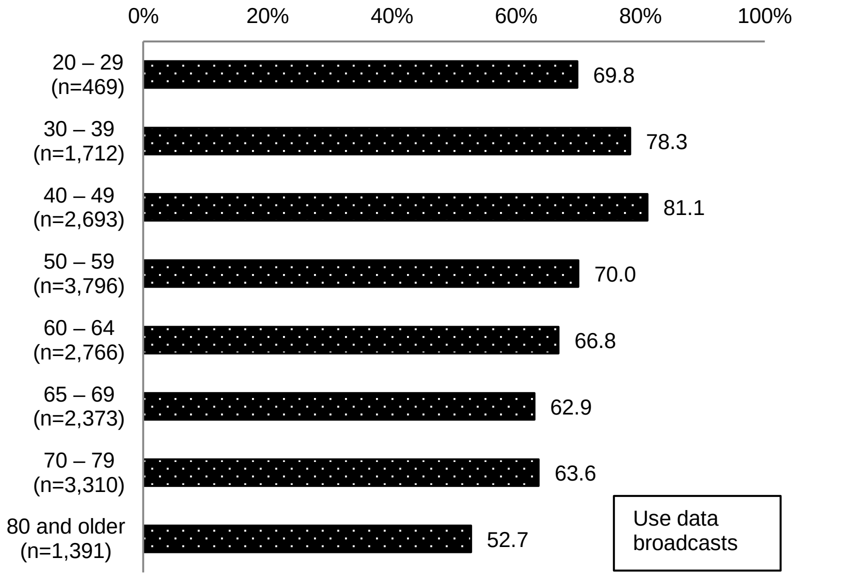
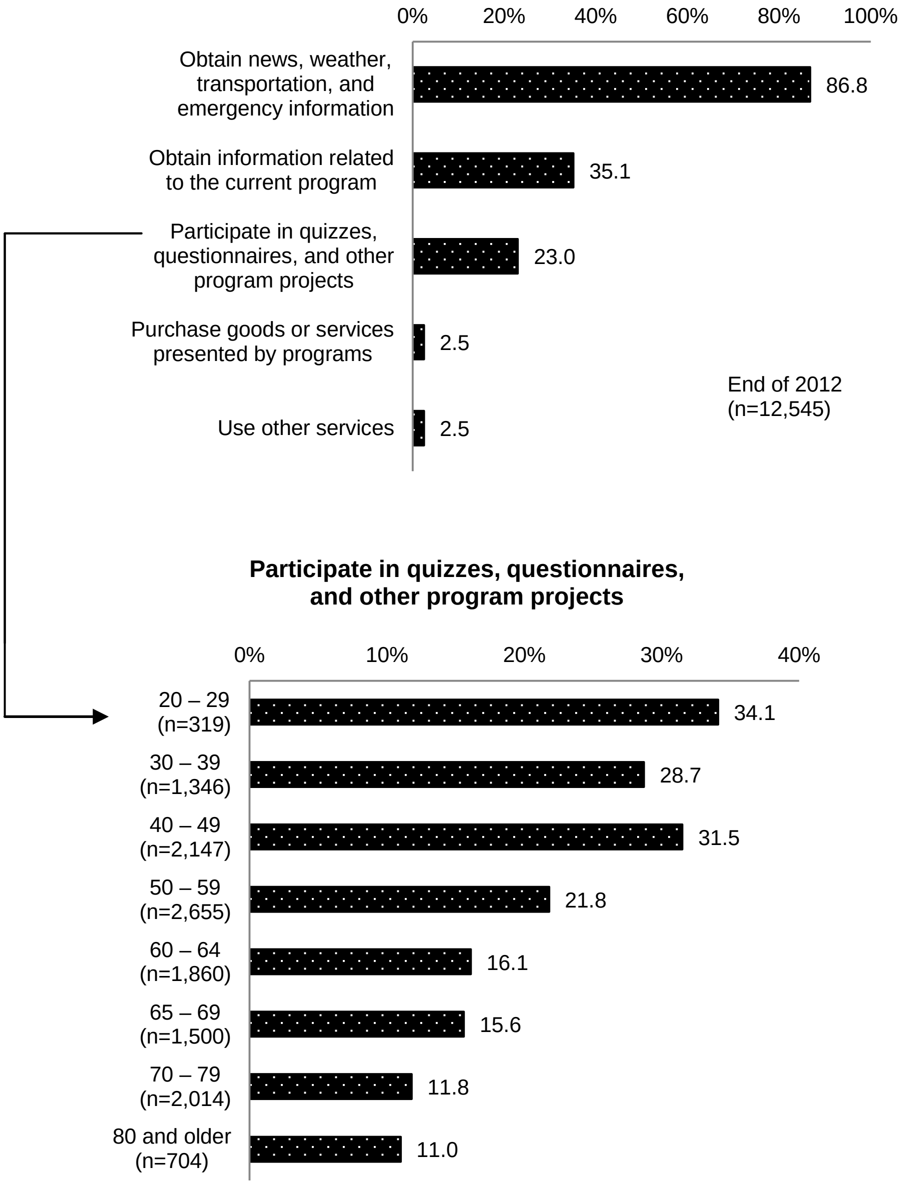


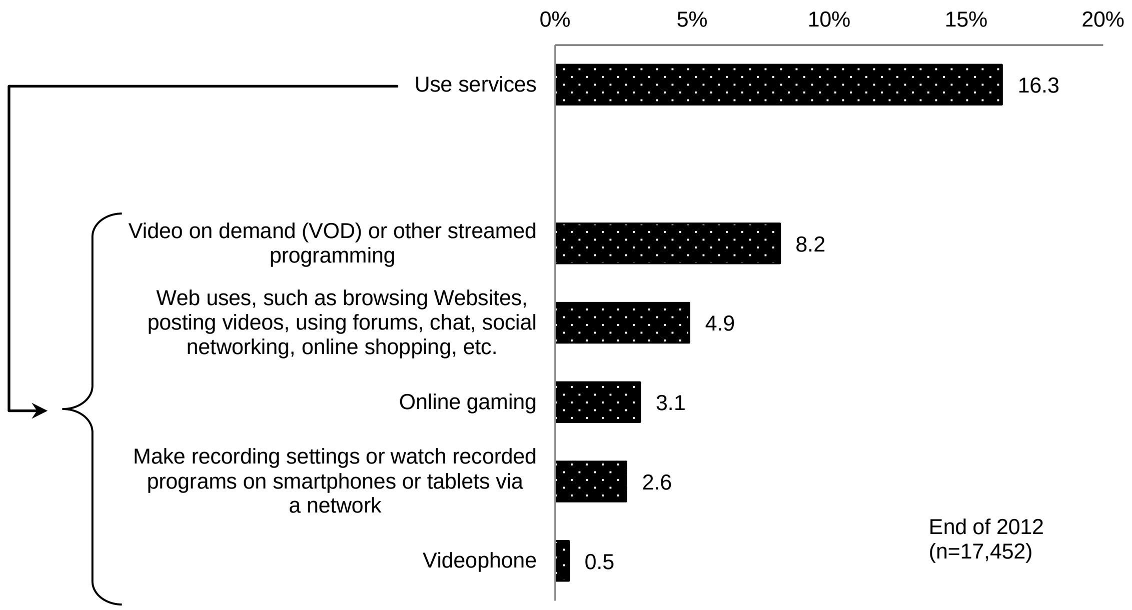
Figure 5-4: Use of data broadcasts (households)



(3) Usage of services available on digital broadcast receivers (households)

16.3 percent of households use services available on digital broadcast receivers. The most common service used is “video on demand (VOD) or other delivered programming,” at 8.2 percent. This was followed by “Web uses, such as browsing Websites, posting videos, using forums, chat, social networking, online shopping, etc.,” at 4.9 percent.

Figure 5-5: Services available on digital broadcast receivers (households)

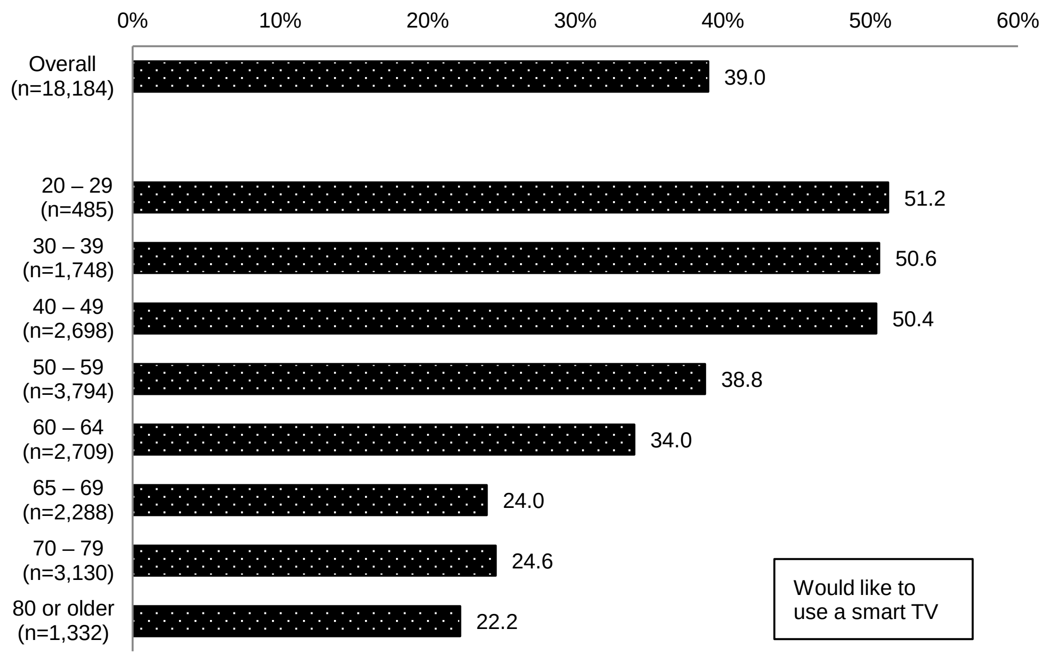


(4) Smart TV usage (households)

Among the surveyed households, 39.0 percent “would like to use a smart TV.”

This percentage tops 50 percent in households headed by someone between 20 and 49.

Figure 5-6: Smart TV usage (households)



Note: A smart TV is a TV with Internet access functionality to obtain and display information from the Web related to the current program, with the ability to run a wide variety of apps, and with connectivity to smartphones and tablets from all manufacturers.