

June 27, 2014

Communications Usage Trend Survey in 2013 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 2013.

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 2014	
Survey area	Nationwide	
Scope of attributes / Level of survey	Households headed by someone aged 20 or older (as of April 1, 2013) and household members	Businesses with 100 or more regular employees in industries other than public affairs
Number of samples [Effective mails]	40,592 [36,727]	5,140 [3,934]
Effective responses [%]	15,599 households (43,625 persons) [42.5%]	2,216 enterprises [56.3%]
Survey items	Communication services usage, communication-device ownership, etc.	
Survey method	Survey form sent and collected by postal mail	

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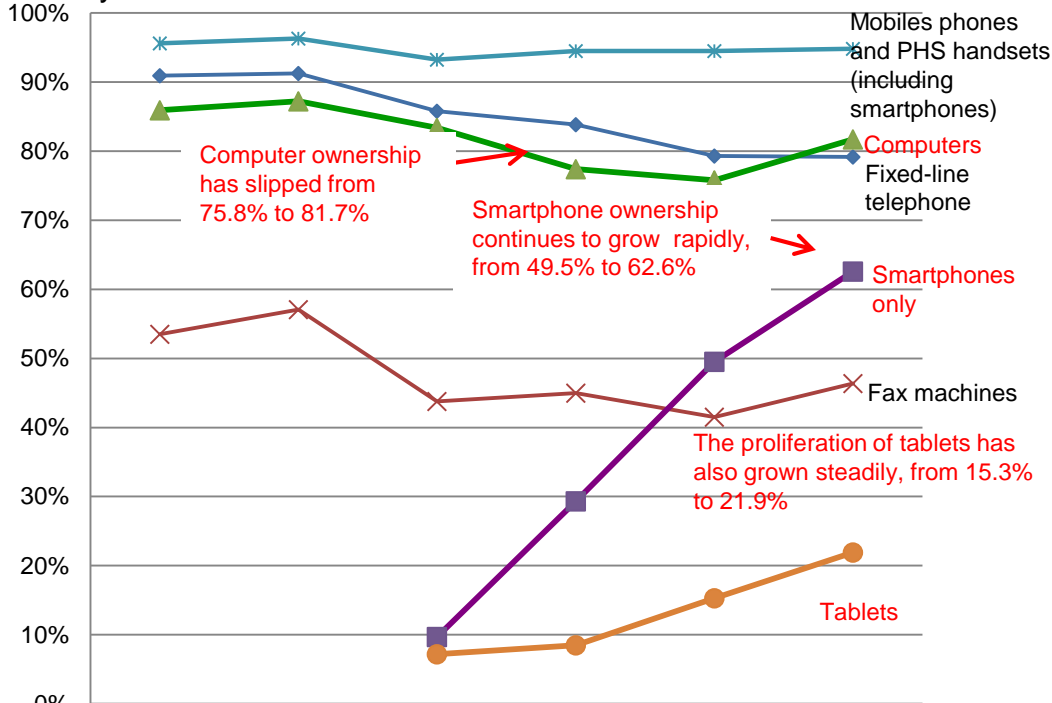
Highlights of the Communications Usage Trend Survey in 2013

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 (2008 – 2013)

Computer ownership has recovered, and ownership of smartphones and tablets has grown steadily.

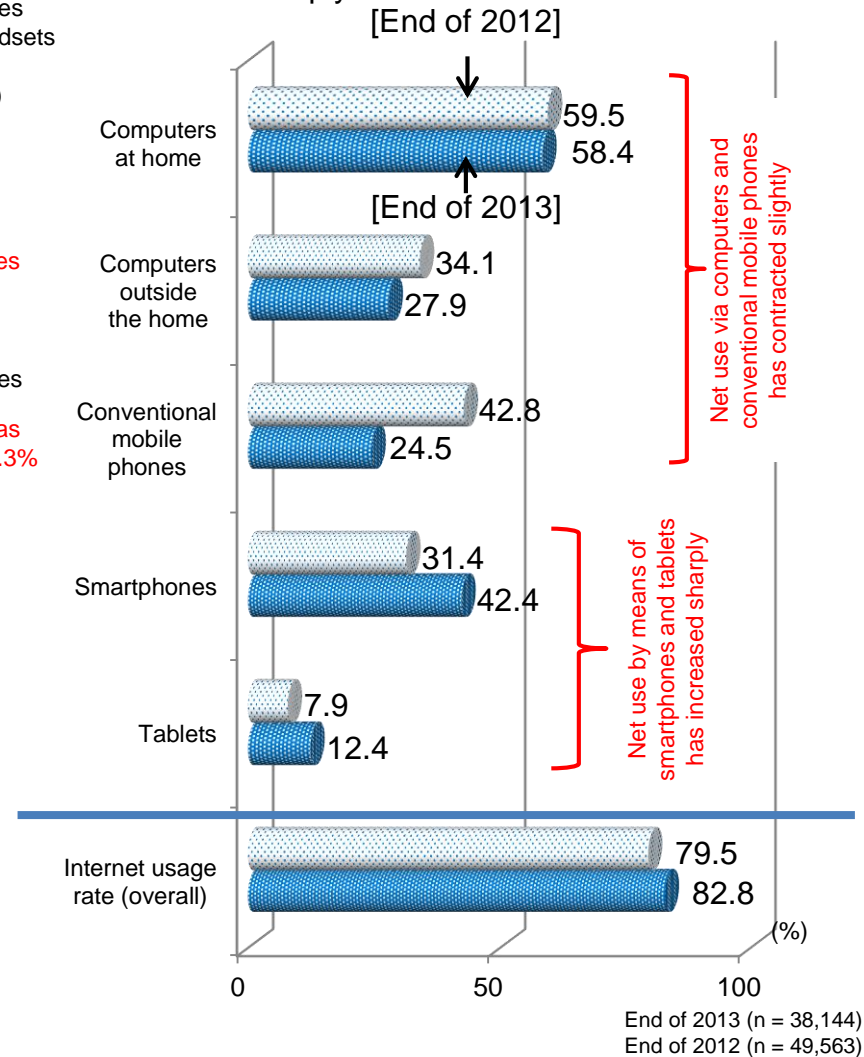


Device	End of 2008 (n = 4,515)	End of 2009 (n = 4,547)	End of 2010 (n = 22,271)	End of 2011 (n = 16,530)	End of 2012 (n = 20,418)	End of 2013 (n = 15,599)
Fixed-line telephones	90.9	91.2	85.8	83.8	79.3	79.2
FAX machines	53.5	57.1	43.8	45.0	41.5	46.4
Computers	85.9	87.2	83.4	77.4	75.8	81.7
Smartphones only			9.7	29.3	49.5	62.6
Mobiles phones and PHS handsets	95.6	96.3	93.2	94.5	94.5	94.8
Tablets			7.2	8.5	15.3	21.9

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 81.2% at the end of 2012 and 76.5% at the end of 2013.

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

Internet use by means of smartphones and tablets has increased sharply.

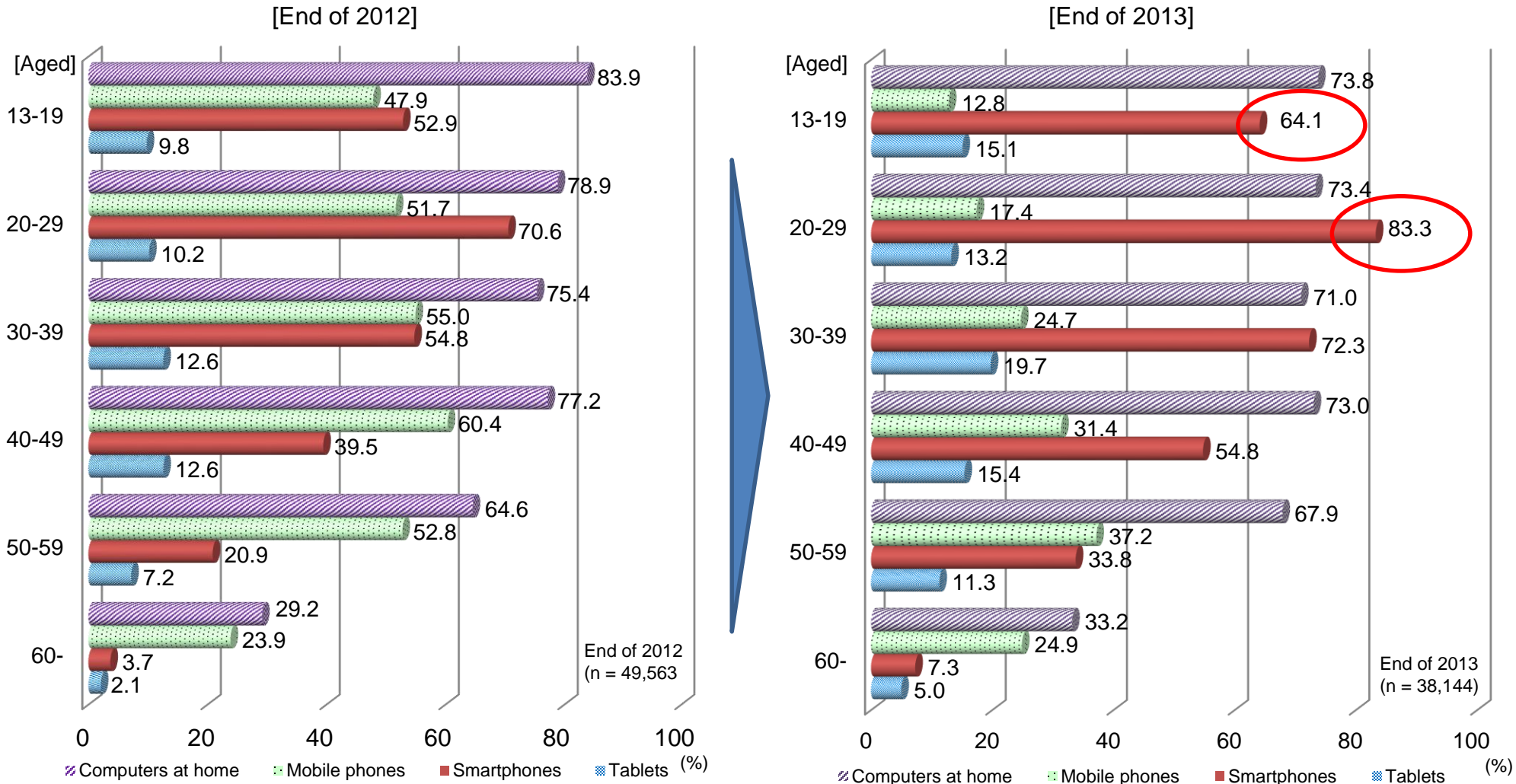


Note: Each figure is the percentage of all household members (individuals) in each year's survey who used the respective device in the previous year to access the Internet (multiple responses accepted, non-responses excluded).
 End of 2013 (n = 38,144)
 End of 2012 (n = 49,563)

2. Internet Usage Trends (1)

Internet usage by age group

Smartphone growth has been prominent in the under-60s age groups. Conventional mobile phones have declined markedly in the under-40 age groups.



Note: Figures for the end of 2012 were taken from the 2012 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).

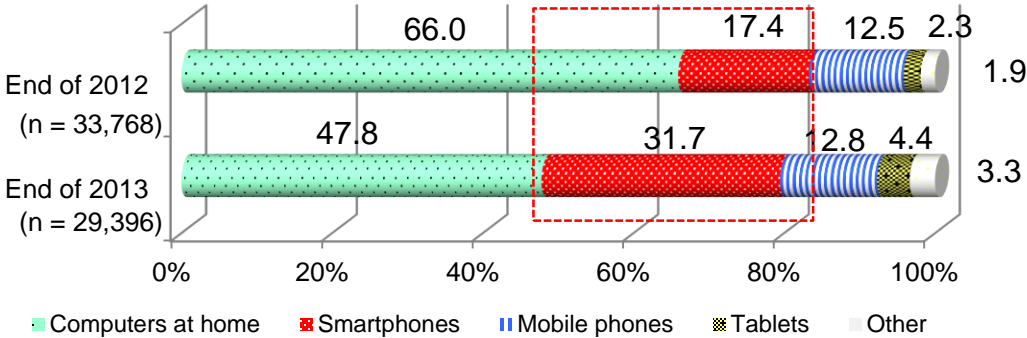
Note: Mobile phones exclude smartphones.

2. Internet Usage Trends (2)

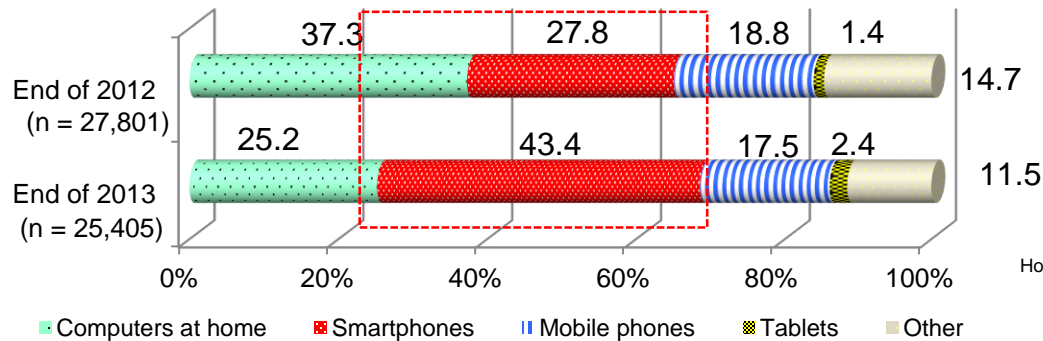
Primary Internet access device used at home and outside the home (as a percentage of Internet users)

Smartphones have grown rapidly as a primary Internet access device both at home and outside the home.

[Internet use at home]



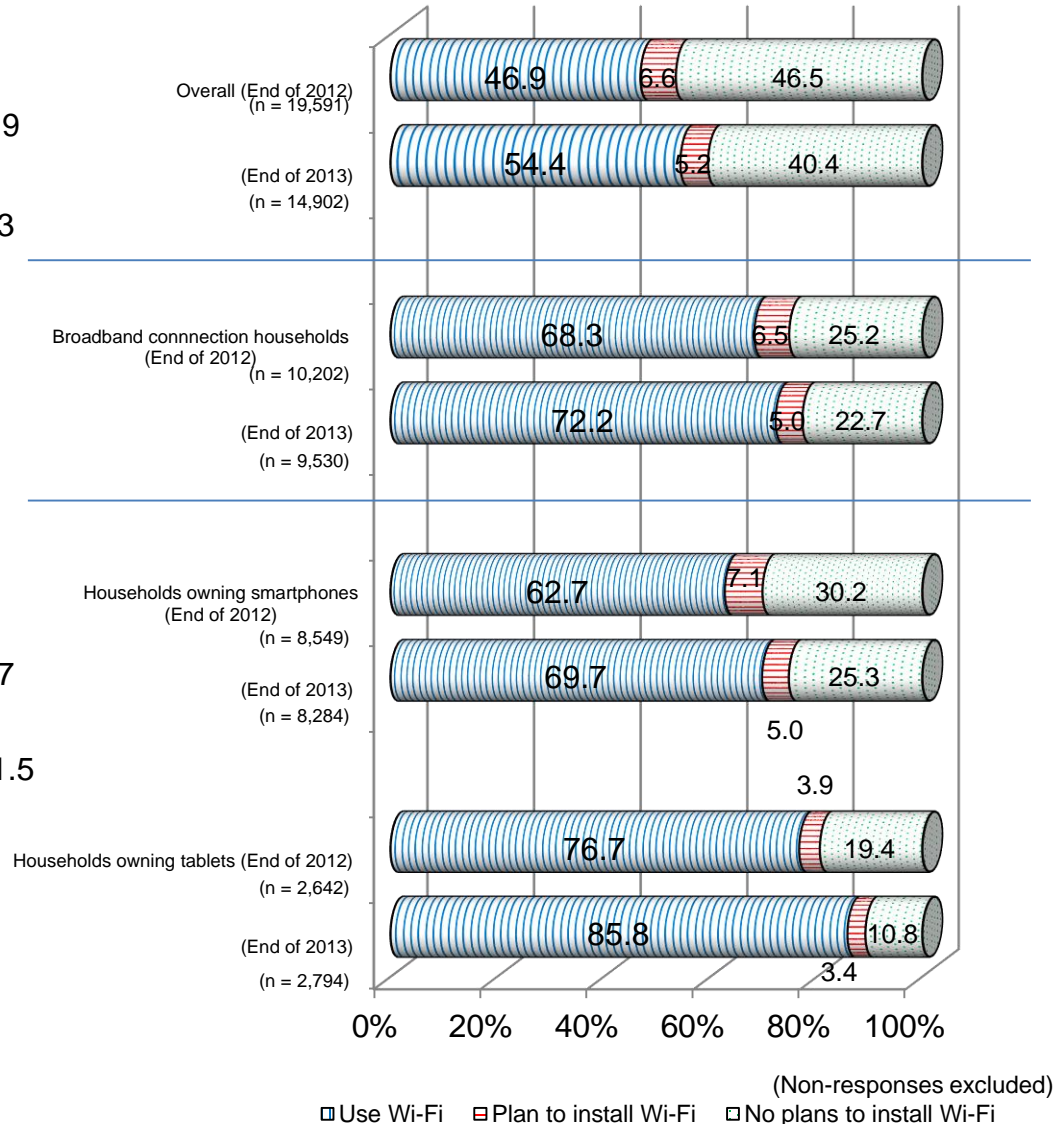
[Internet use outside the home]



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 rates (households)

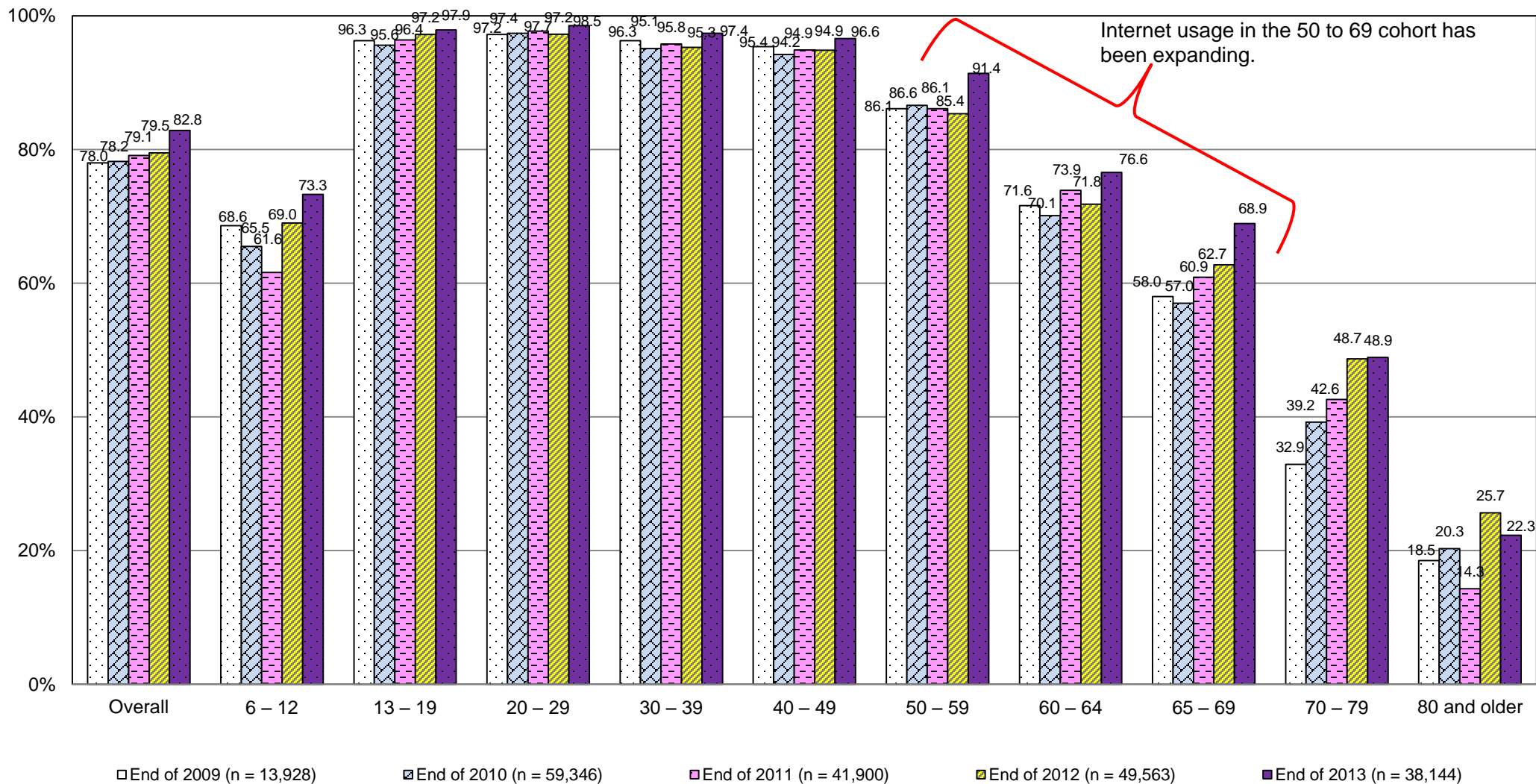
Home Wi-Fi usage rates at households owning smartphones or tablets have been increasing.



(Non-responses excluded)
 ■ Use Wi-Fi ■ Plan to install Wi-Fi ■ No plans to install Wi-Fi

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

Internet usage in the 13 to 59 cohort has exceeded 90 percent, while internet usage in the 50 to 69 cohort has been expanding.



Internet usage in the 50 to 69 cohort has been expanding.

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

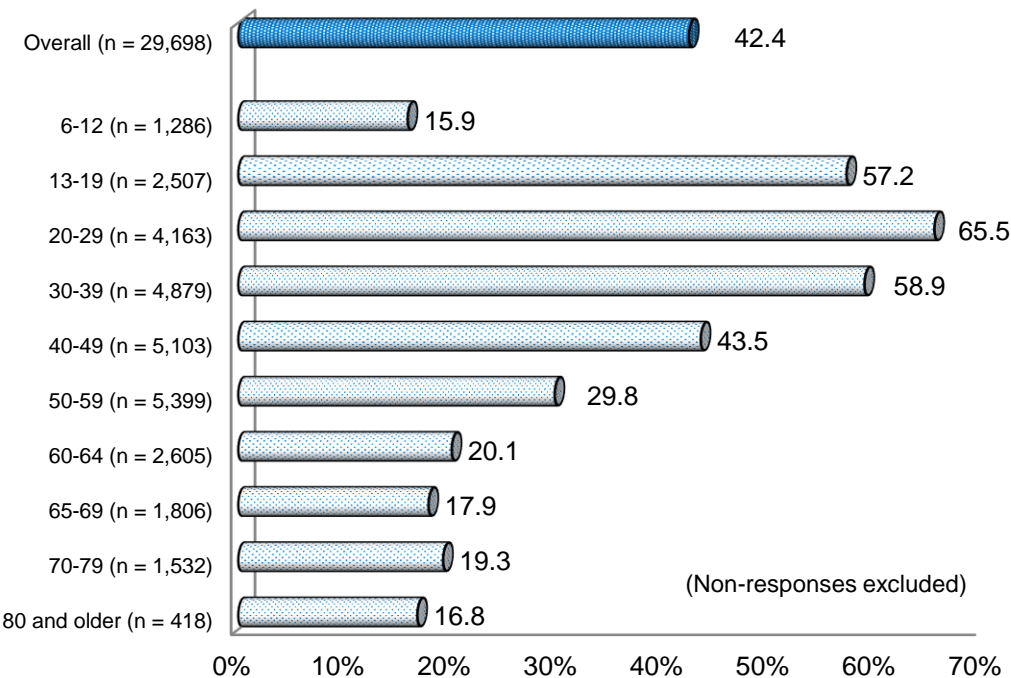
3. Social Media Usage Trends

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

Social media usage

More than 50 percent of the 13 to 39 cohort use social media.

[Social media usage]

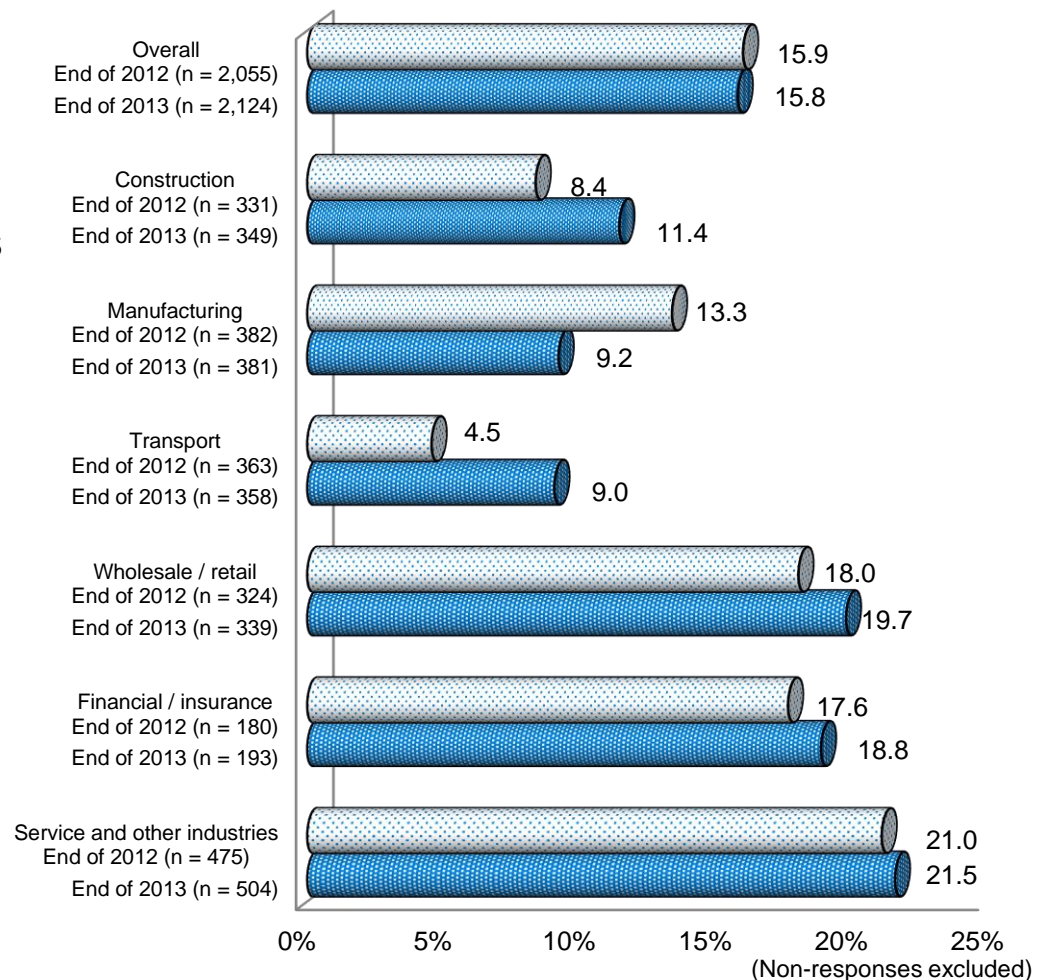


(Note) Social media refers to information services in which one can communicate with multiple people on the Internet.

Social media use by businesses

About 20 percent of businesses in the “service and other industries,” “wholesale/retail,” and “financial/insurance” use social media.

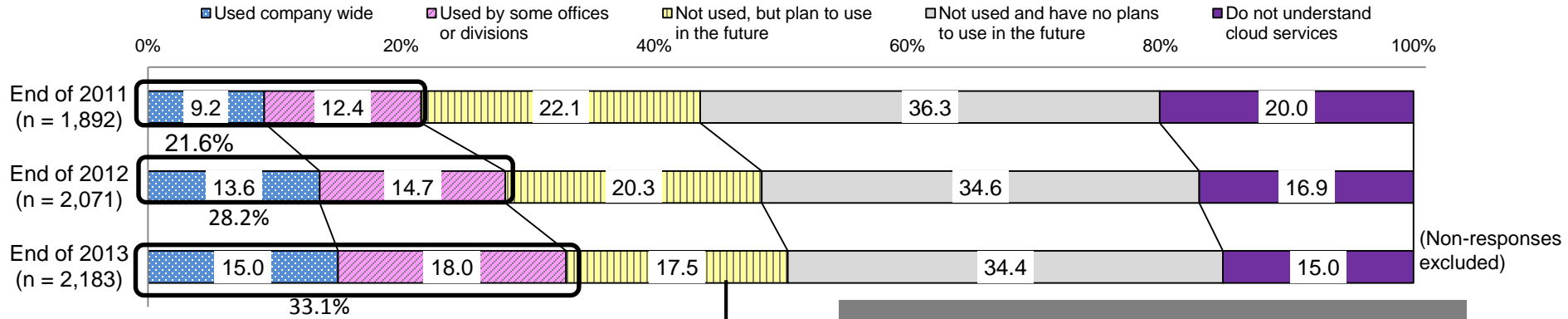
[By industry]



4. Cloud Service Usage (businesses)

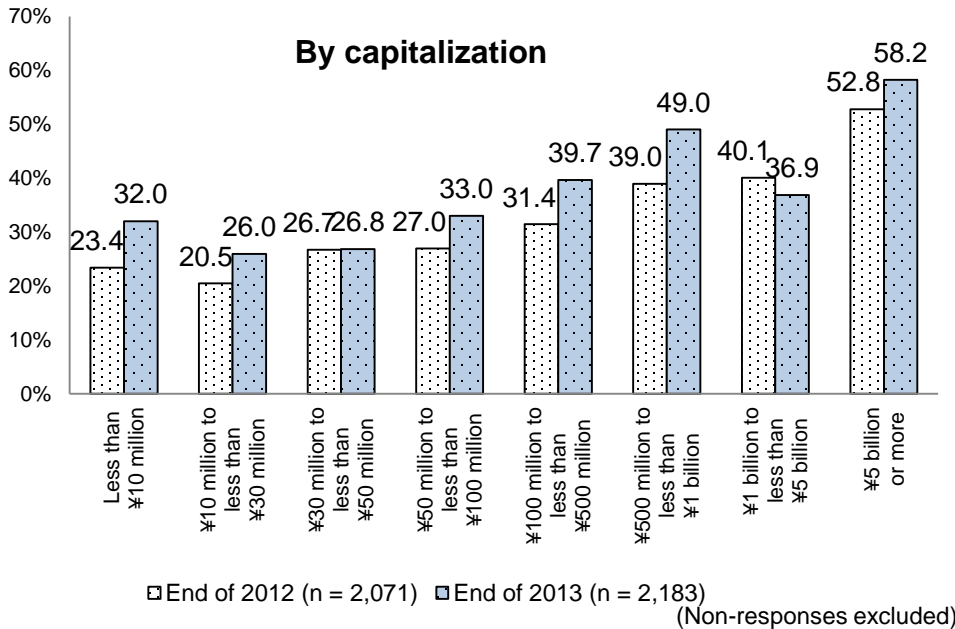
Cloud service usage

The percentage of businesses using cloud services expanded from 28.2 percent to 33.1 percent.



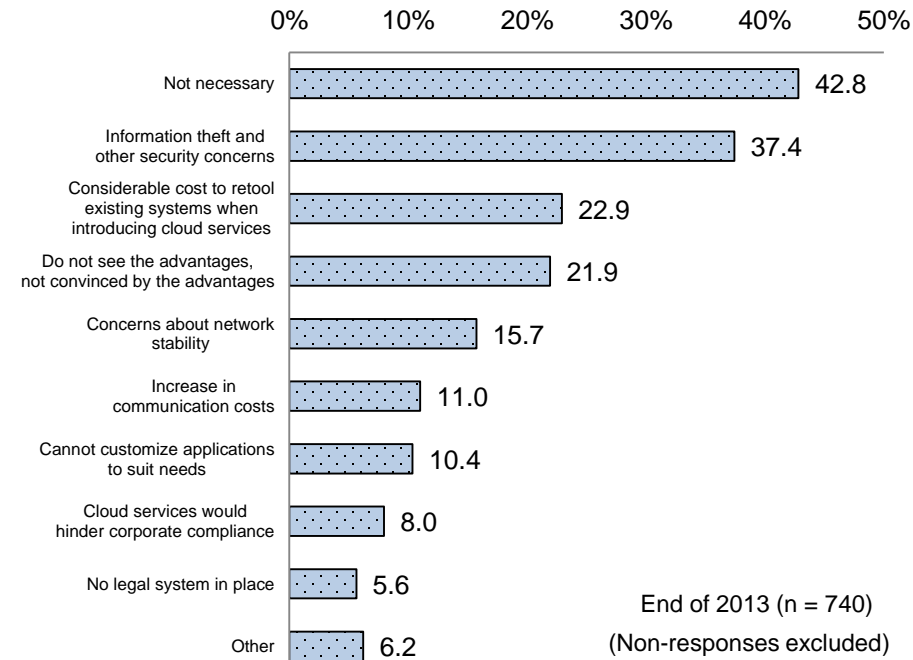
Cloud service usage by capitalization

Cloud service usage exceeds 50 percent in businesses with ¥5 billion or more capitalization.



Reasons for not using cloud services

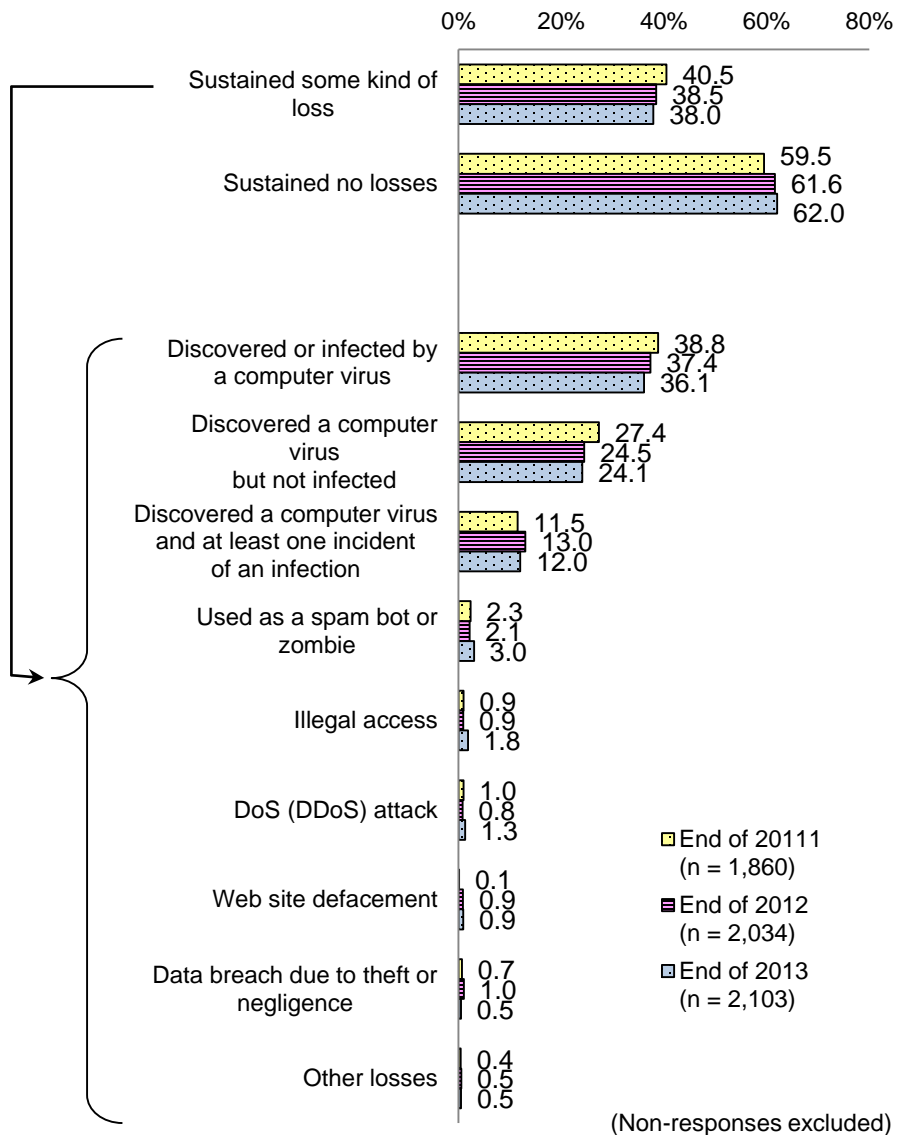
Of businesses not using cloud services, 42.8 percent said “not necessary” and 37.4 percent said “security concerns.”



5. Security Breaches on Company Communication Networks (businesses)

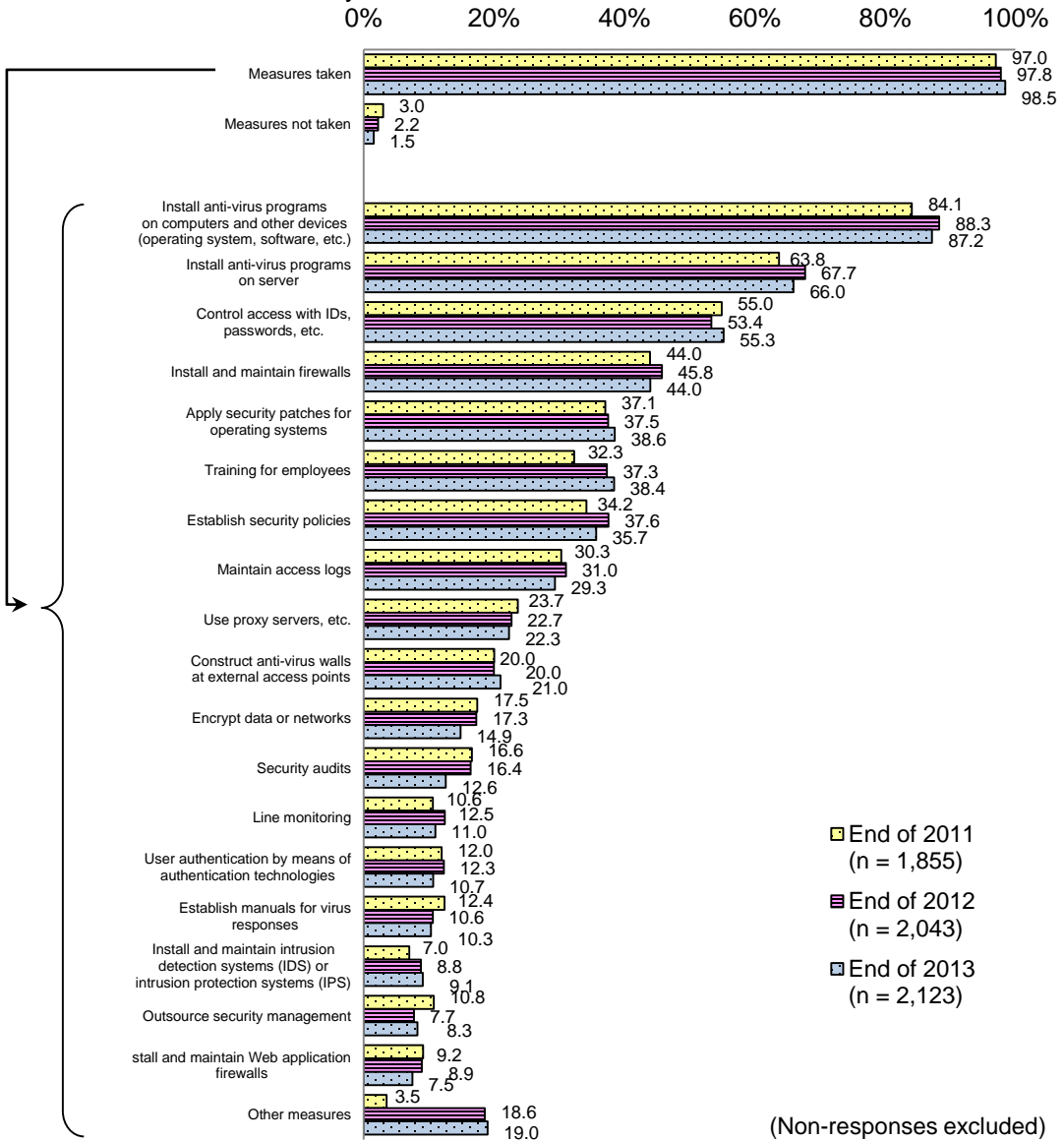
Information security losses sustained by businesses

The percentage of businesses reporting some kind of losses regarding information security has been falling.



Information security measures taken by businesses

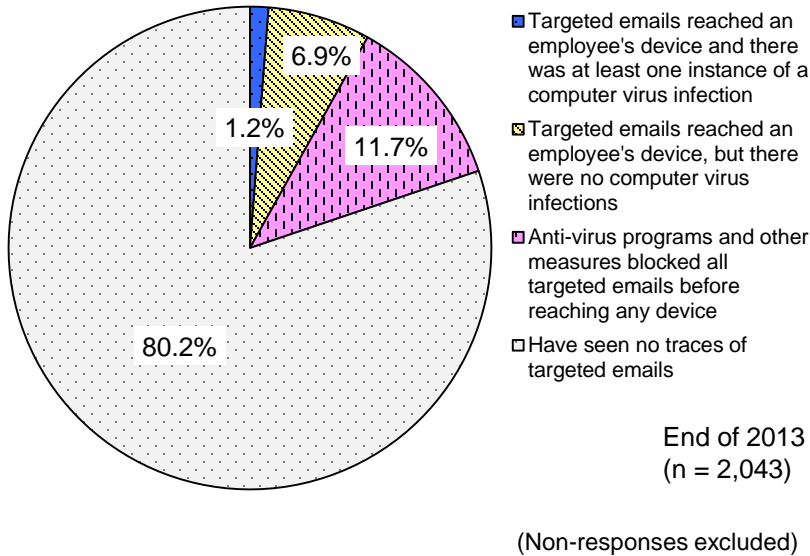
The percentage of businesses that have taken some security measures has remained high, over 97 %, on all three surveys between 2011 and 2013.



6. Targeted Email Losses and Security Measures (businesses)

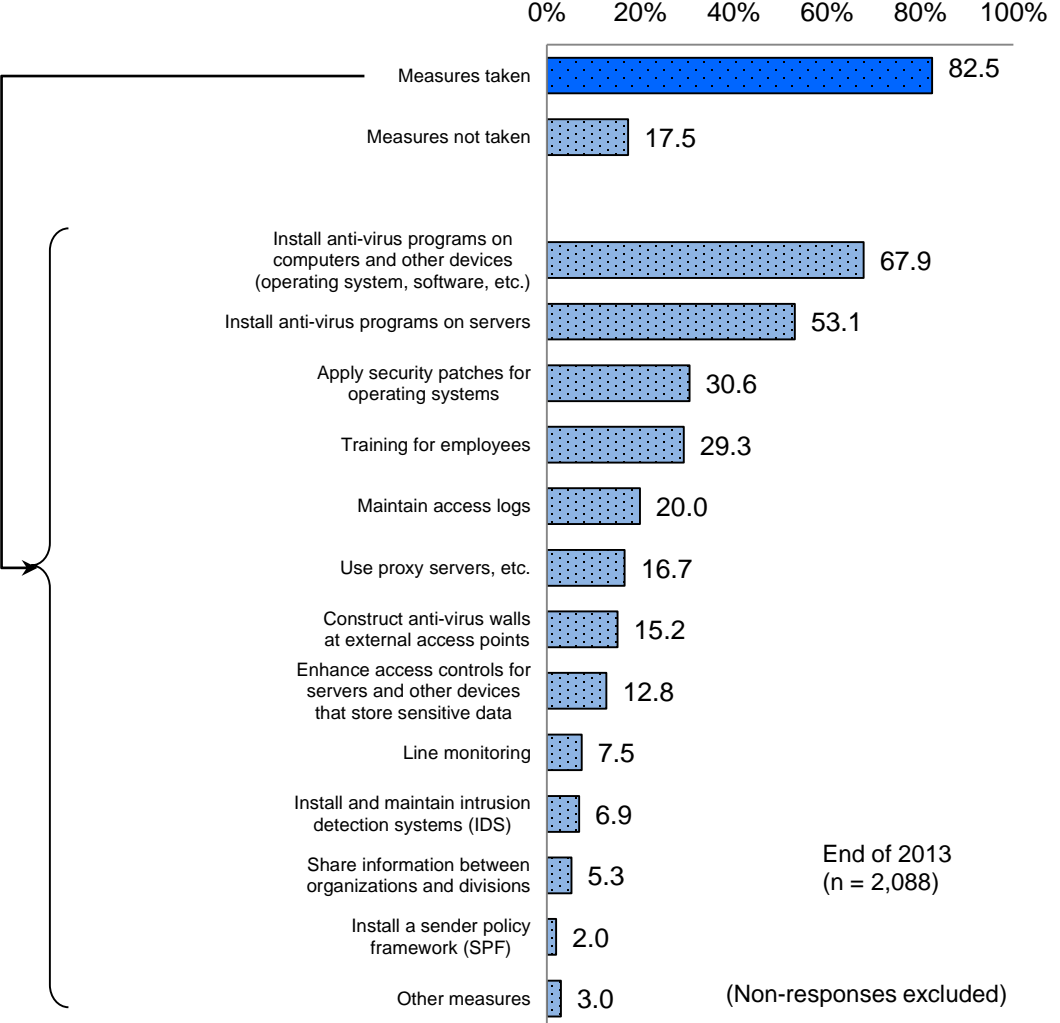
Targeted email losses

19.8 percent of businesses reported they had sustained losses from targeted email. Of these, 1.2 percent reported at least one instance of computer virus infection.



Targeted email security measures

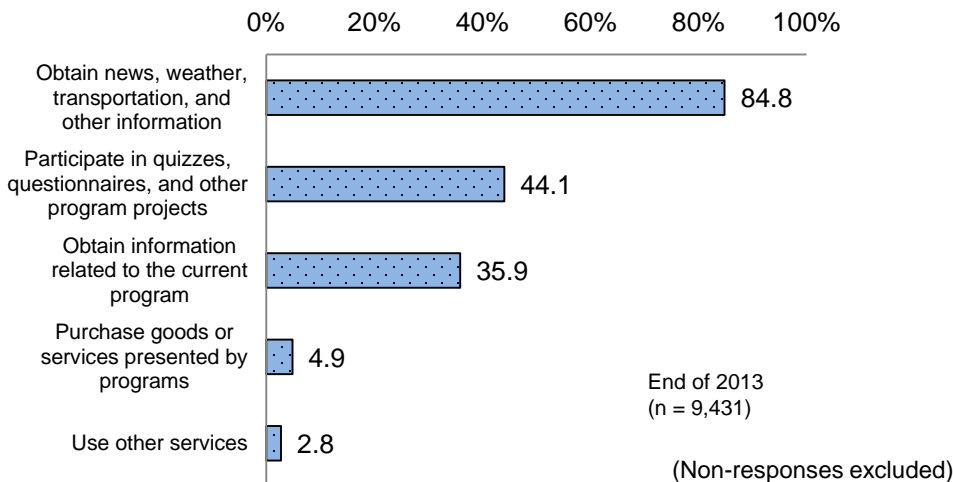
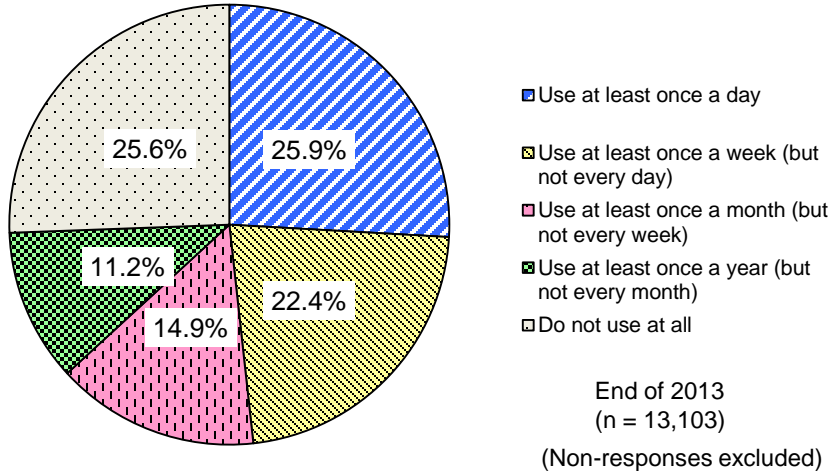
82.5 percent of businesses have taken some security measures against targeted email. Large portion of businesses installed anti-virus program as a protection measure.



7. Digital Television Broadcast Usage

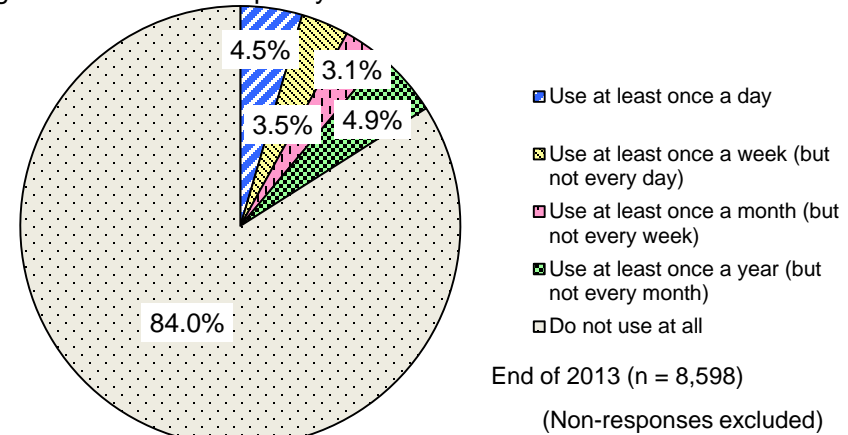
Data broadcast function usage of digital television (households)

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



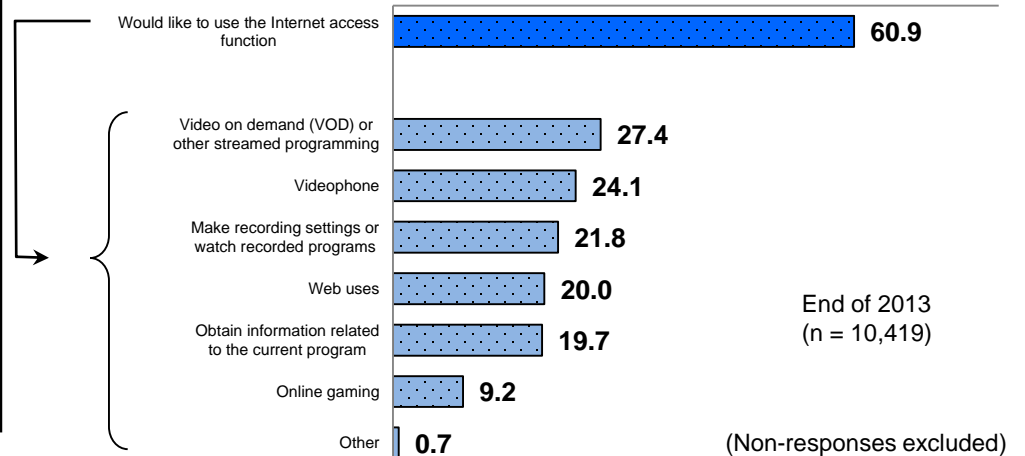
Internet access function usage of digital television (households)

16.0 percent of households used the Internet access function of digital television in the past year.



Intention of Internet access function usage of digital television (households)

60 percent or more of households are inclined to use the Internet access function. Using video on demand or other streamed programming is a very common purpose of usage.



Summary Findings of the 2013 Communications Usage Trend Survey
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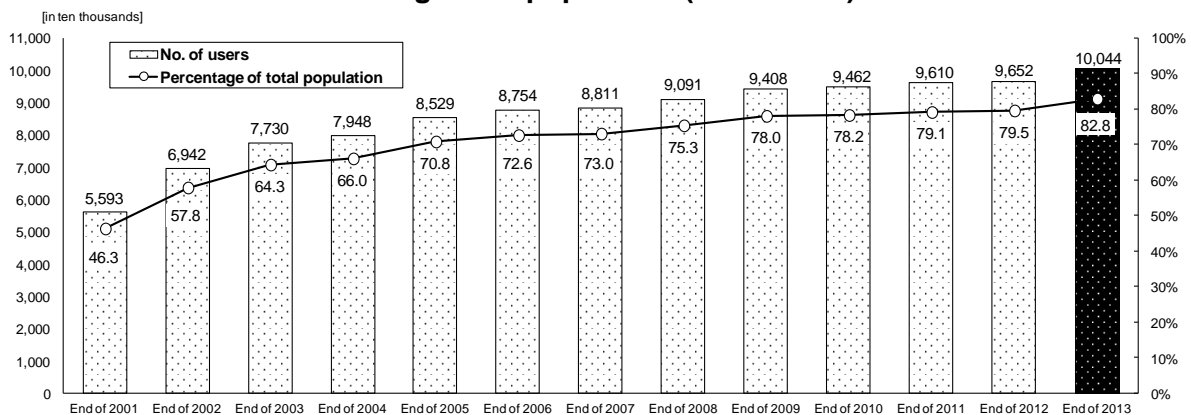
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1. Proliferation of the Internet and Other Networks

(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 2013 is estimated to be 100.44 million, an increase of 3,920,000 from the previous year, exceeding 100 million for the first time. The percentage of the general population who are Internet users was 82.8 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 59 used the Internet. Although the usage rate in the 60 and over cohort was lower than that of other age brackets, strong growth was seen in the 50 to 69 cohort.

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 80 percent or more 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. Eleven prefectures had above-average usage rates: Kyoto, Osaka, Kanagawa, Shiga, Saitama, Tokyo, Aichi, Hokkaido, Hyogo, Kagawa and Mie.

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)

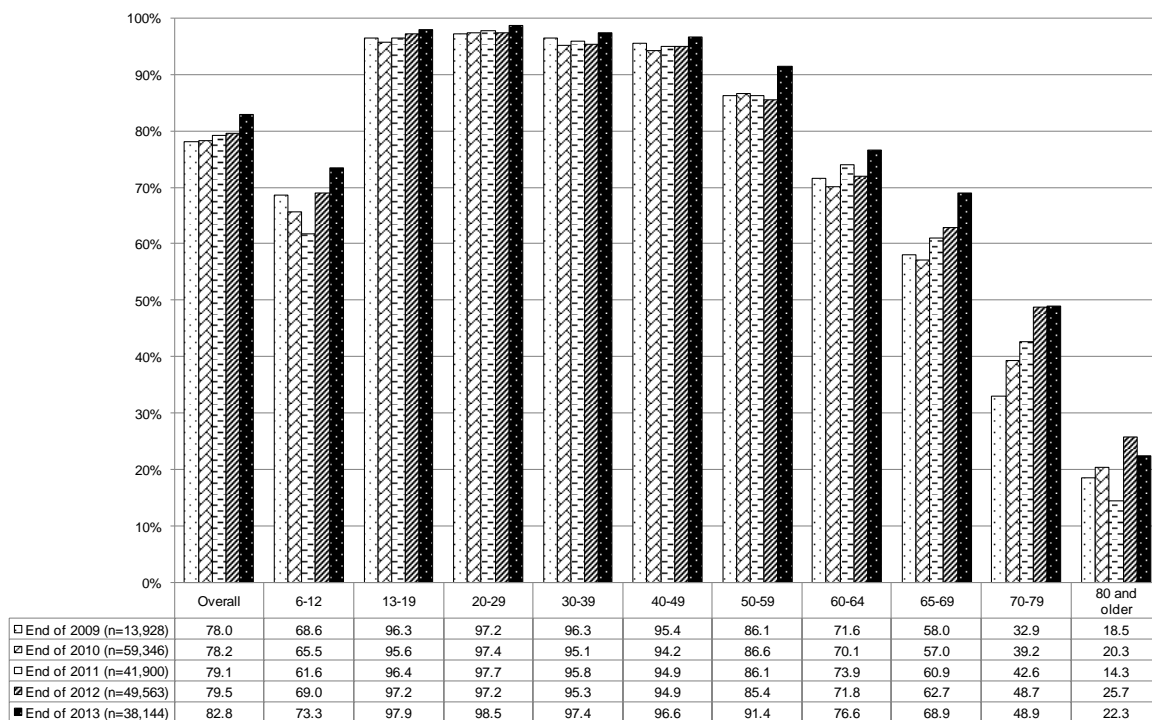


Figure 1-3: Internet usage by age and gender — end of 2013 (individuals)

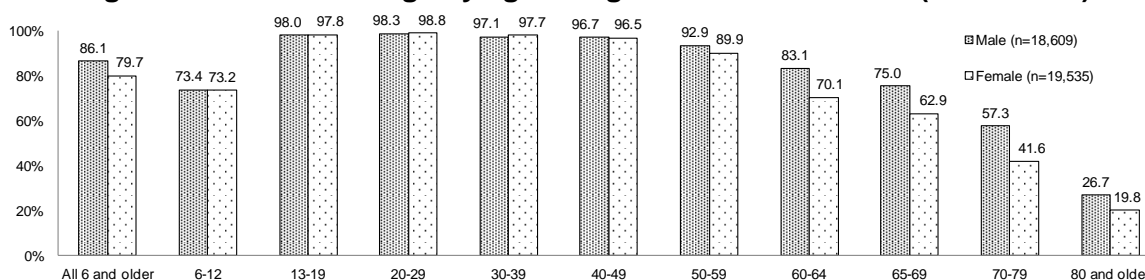


Figure 1-4: Internet usage by annual household income — end of 2013 (individuals)

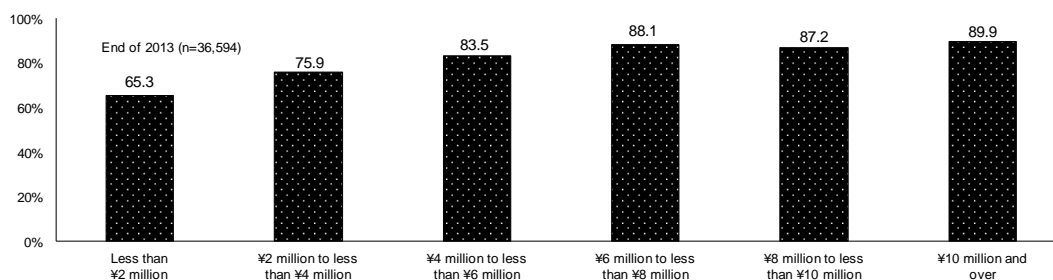


Figure 1-5: Frequency of Internet use at home and outside the home

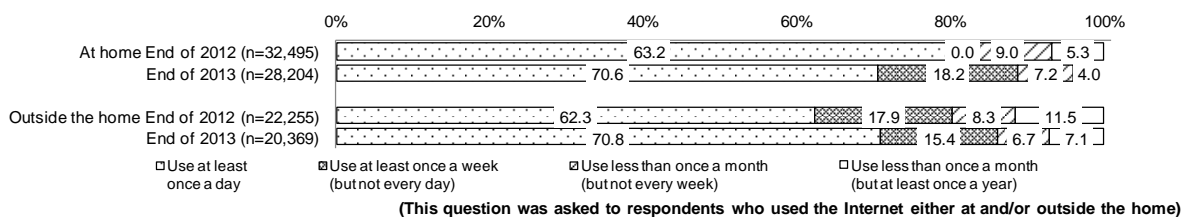


Figure 1-6: Frequency of Internet use at home and outside the home by device — end of 2013

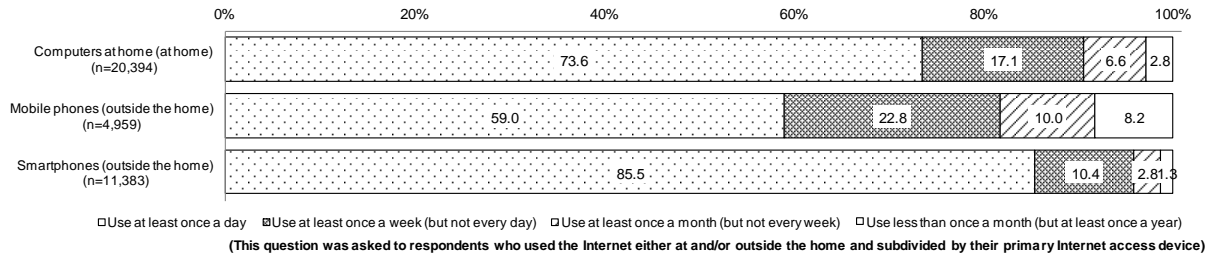


Figure 1-7: Internet usage by prefecture — end of 2013 (individuals)

Prefecture (n)	Total usage rate	Computers at home	Computers outside the home	Mobile phones	Smartphones
Hokkaido (654)	84.1	54.0	25.5	25.0	38.5
Aomori (911)	73.8	46.1	22.2	21.8	31.7
Iwate (869)	75.3	47.2	26.3	23.6	34.5
Miyagi (880)	80.9	56.7	26.0	21.7	38.8
Akita (821)	74.1	52.2	23.7	22.6	34.4
Yamagata (1,091)	75.4	47.6	24.2	20.6	35.2
Fukushima (885)	78.0	48.6	23.7	25.1	37.8
Ibaraki (771)	80.7	54.2	24.0	26.1	36.2
Tochigi (889)	80.2	53.0	25.2	22.5	37.8
Gunma (832)	82.7	53.9	25.3	26.0	38.3
Saitama (728)	86.1	62.3	28.5	26.9	44.8
Chiba (823)	79.5	56.3	26.6	27.3	39.8
Tokyo (853)	86.1	65.7	36.0	28.3	50.5
Kanagawa (703)	86.9	63.4	29.7	27.2	45.9
Niigata (1,045)	79.0	47.4	26.4	24.3	36.2
Toyama (1,012)	80.9	61.7	24.6	21.1	36.0
Ishikawa (921)	80.6	56.7	26.9	22.6	38.2
Fukui (839)	82.2	58.9	29.1	22.1	40.0
Yamanashi (837)	81.7	57.9	25.9	24.3	40.8
Nagano (909)	81.3	53.6	26.1	23.6	36.2
Gifu (975)	79.8	53.9	25.7	22.7	42.9
Shizuoka (815)	82.0	57.6	27.0	22.6	42.8
Aichi (862)	85.4	66.7	28.3	22.0	43.9
Mie (806)	82.9	61.5	28.8	23.4	41.7
Shiga (887)	86.5	63.8	31.8	25.7	43.9
Kyoto (750)	89.1	68.3	31.1	25.4	42.9
Osaka (682)	87.4	62.0	29.7	24.3	49.0
Hyougo (830)	83.3	59.6	26.1	22.7	44.1
Nara (920)	82.4	57.0	23.0	25.5	41.0
Wakayama (670)	77.0	53.4	24.0	20.9	36.6
Tottori (846)	77.1	49.5	26.7	23.0	36.4
Shimane (960)	73.6	49.2	26.5	21.7	33.5
Okayama (923)	79.9	55.7	26.5	25.9	37.8
Hiroshima (797)	80.9	57.7	25.1	22.9	39.2
Yamaguchi (807)	77.8	54.1	23.5	22.0	33.9
Tokushima (791)	79.2	52.1	24.6	23.6	40.1
Kagawa (737)	83.1	60.2	24.1	23.4	42.9
Ehime (729)	79.1	53.5	23.0	22.1	38.1
Kochi (644)	72.3	43.9	20.4	23.5	31.7
Fukuoka (692)	82.0	60.2	29.4	23.5	41.9
Saga (735)	80.4	52.0	25.5	22.5	38.5
Nagasaki (615)	77.0	51.6	24.8	21.8	40.0
Kumamoto (843)	79.2	47.1	25.2	22.1	40.7
Oita (694)	81.3	49.1	26.0	20.4	43.9
Miyazaki (686)	79.4	45.6	24.3	21.9	37.8
Kagoshima (552)	78.2	44.1	23.1	20.9	40.0
Okinawa (623)	79.6	49.8	29.4	21.1	41.8
Overall (38,144)	82.8	58.4	27.9	24.5	42.4

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 2013 was “computers at home,” at 58.4 percent, followed by “smartphones” (42.4 percent) and “computers outside the home” (27.9 percent).

By age group, 70 percent or more of each age bracket between 13 and 49 use “computers at home” as their primary Internet access device. Smartphone use surpassed use of computers at home in the 20 to 39 cohort, being the most common device used.

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

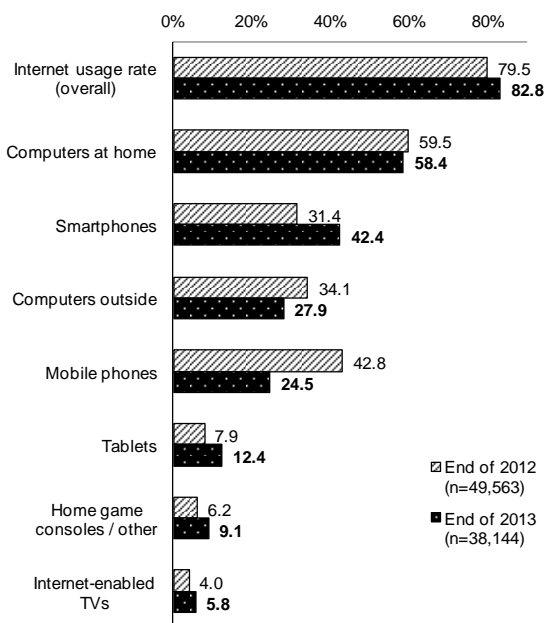


Figure 1-9: Internet usage rates by age and device — end of 2013 (individuals)

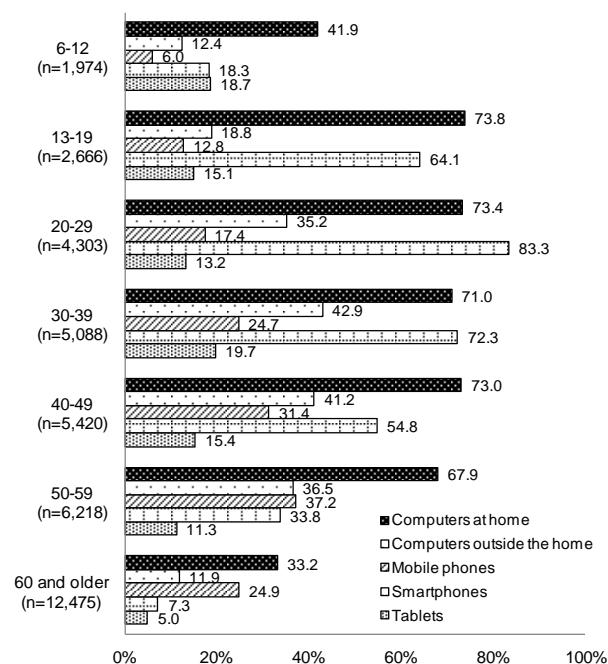


Figure 1-10: Primary device used for Internet access at home

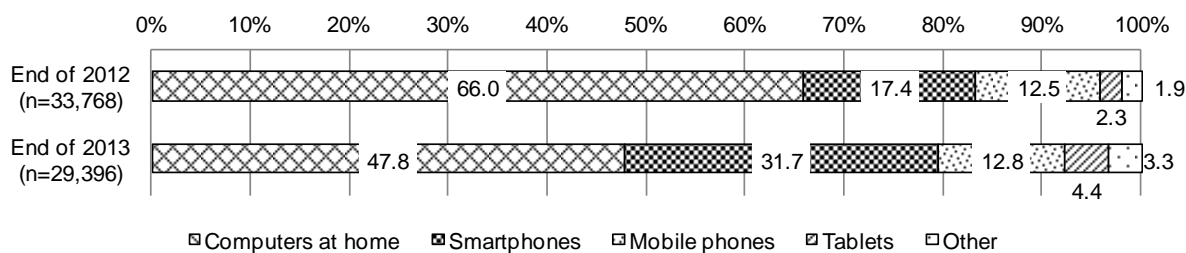
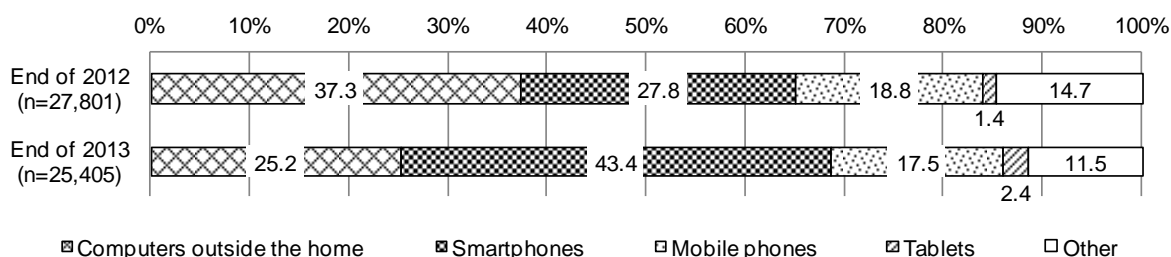


Figure 1-11: Primary device used for Internet access outside the home

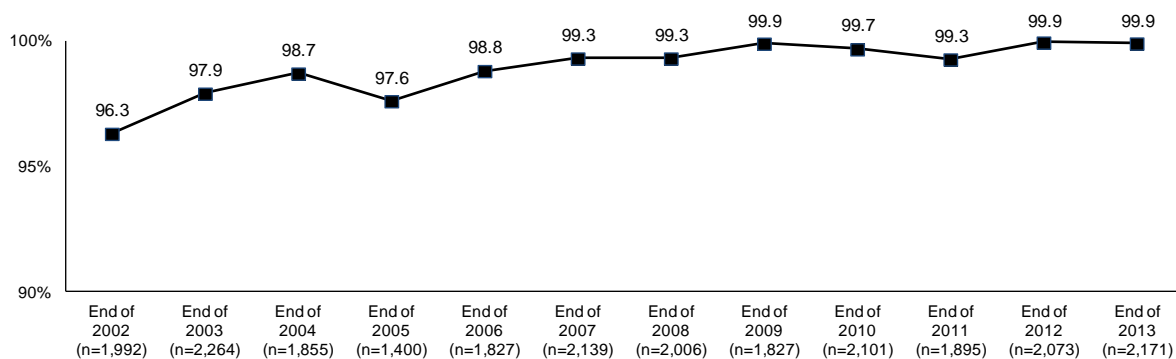


Note: “Other” includes responses indicating that the Internet was not used either at home or outside the home.

(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.

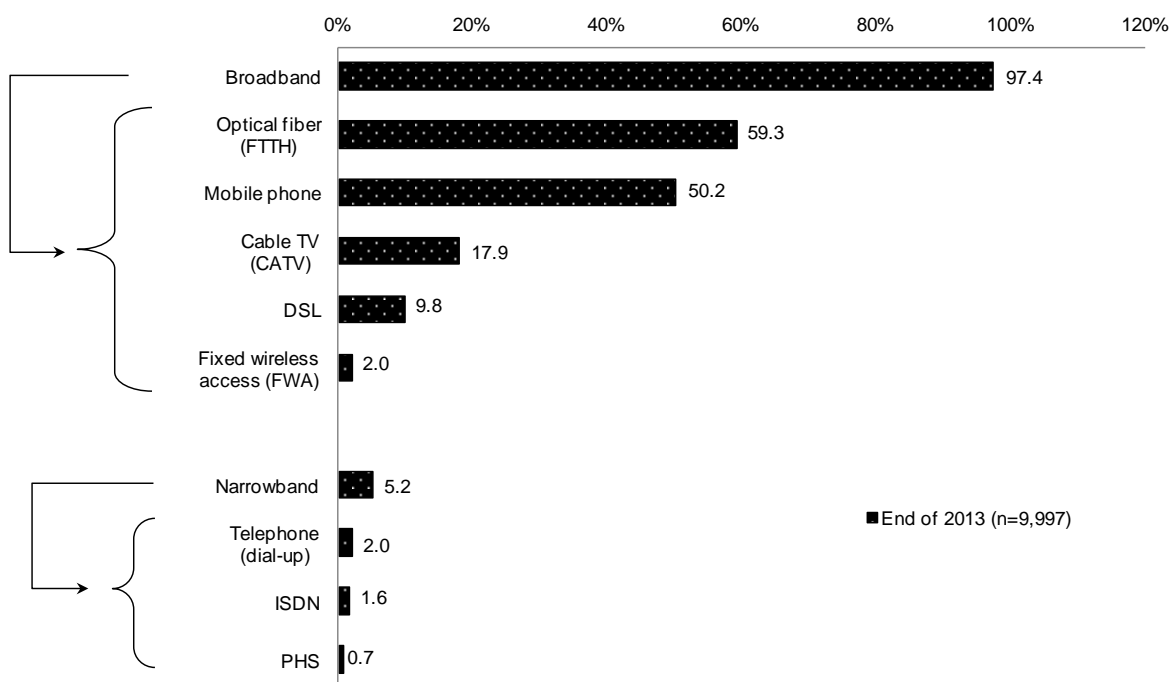
Figure 1-12: Transitions in Internet usage rates (businesses)



(5) Types of Internet connections (households)

97.4 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, 59.3 percent used an optical fiber connection and 50.2 percent used a mobile phone connection.

Figure 1-13: Internet connections for computers at home and other devices — end of 2013 (households) (multiple responses)



Note: Figures tabulated from households that use the Internet from "computers at home," "tablets," or "other devices."

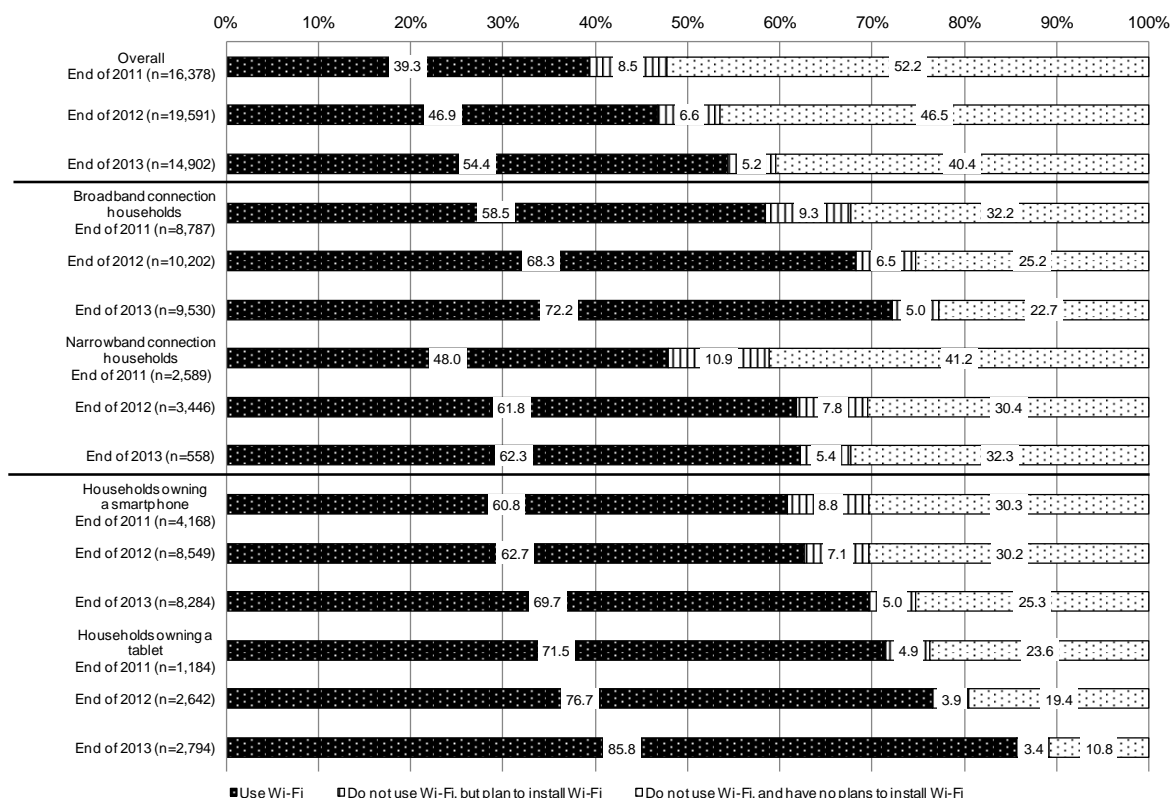
(6) Home Wi-Fi network usage (households)

A total of 54.4 percent of households used a home Wi-Fi network.

By Internet connection type, 72.2 percent of broadband-connected (optical fiber, DSL, etc.) households and 62.3 percent of narrowband-connected (dial-up, ISDN, etc.) households used a home Wi-Fi network.

Looking at the results by owned device, 69.7 percent of households owning a smartphone and 85.8 percent of households owning a tablet used a home Wi-Fi network.

Figure 1-14: Home Wi-Fi network usage

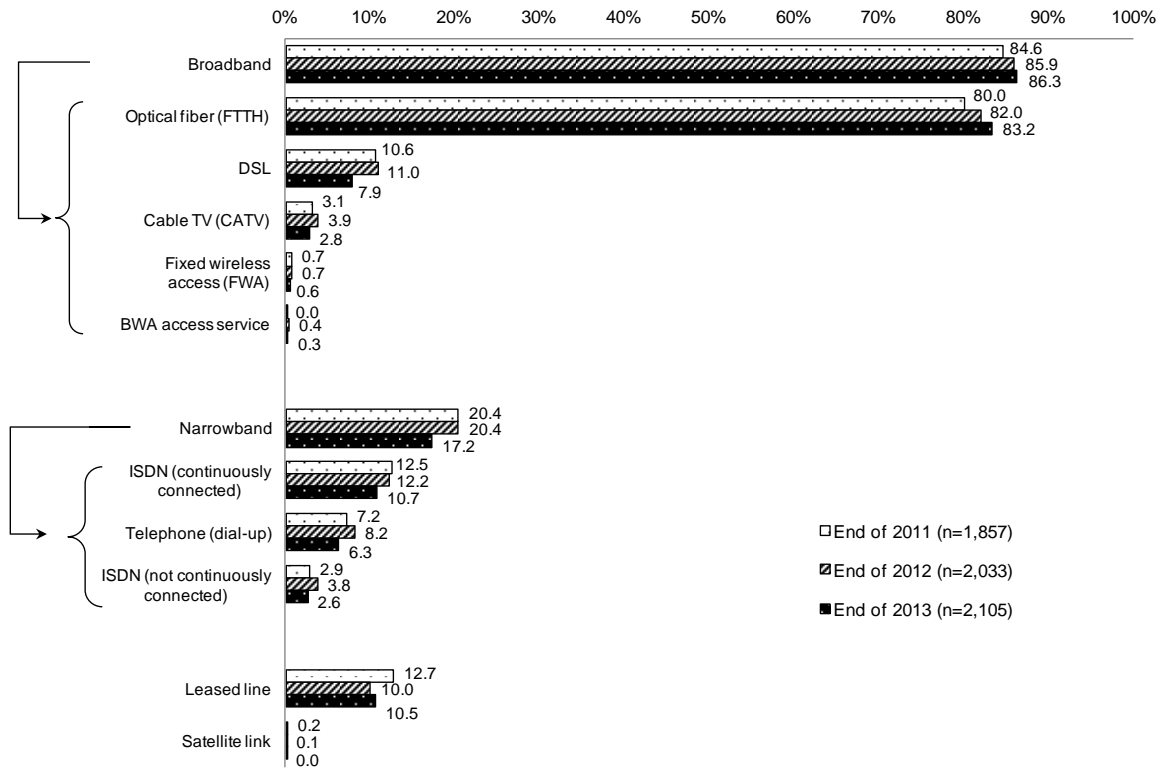


- Notes:
1. Figures for broadband connections (optical fiber, DSL etc.) include joint usage with narrowband connections.
 2. Figures for narrowband connections (dial-up, ISDN, etc.) include joint usage with broadband connections.
 3. Figures for broadband and narrowband connections cover households that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

(7) Types of Internet connections (businesses)

86.3 percent of businesses, a 0.4 percentage point increase from the previous year, used a broadband connection to access the Internet from their premises. Those using optical fiber connections rose 1.2 percent to 83.2 percent, indicating that the move to broadband by businesses via optical fiber connections was progressing steadily.

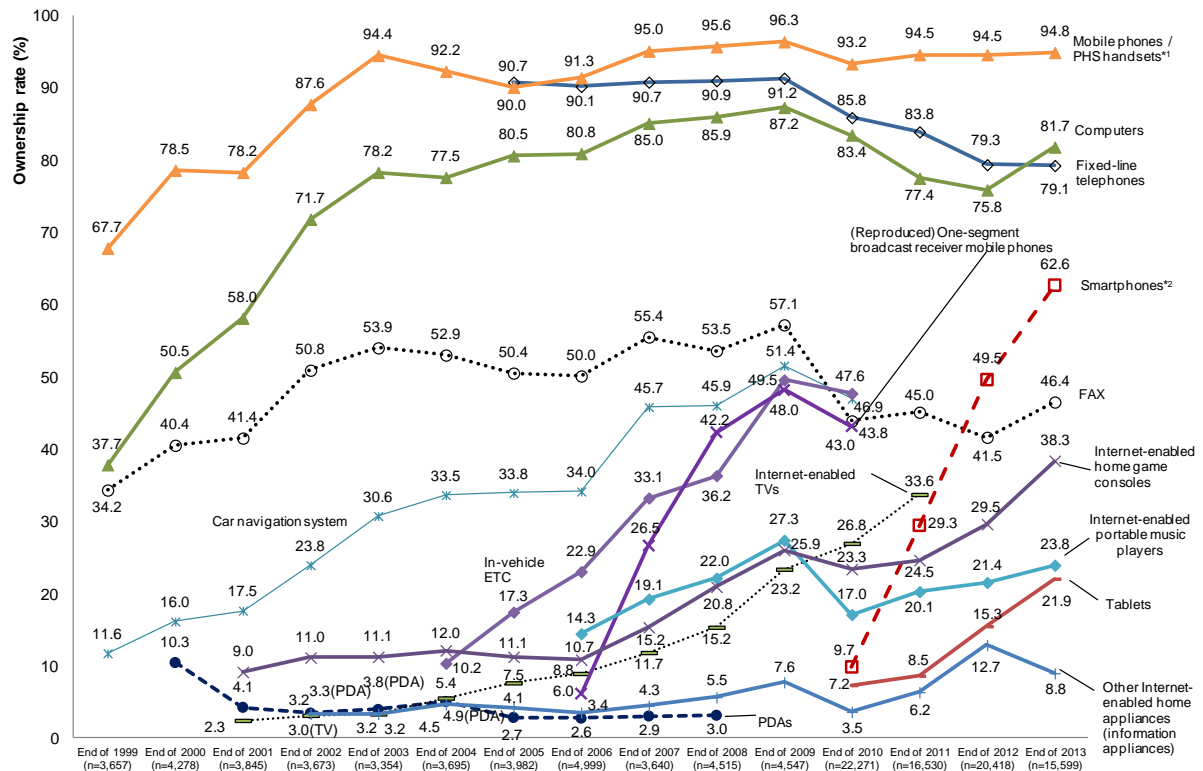
Figure 1-15: Internet connection types (businesses) (multiple responses accepted)



(8) Proliferation of common communication devices (households)

The household penetration rate of “mobile phones / PHS handsets” and “computers” was 94.8 percent and 81.7 percent respectively. “Smartphones,” which were included in the “mobile phones / PHS handsets” category, have already proliferated rapidly, reaching a household penetration rate of 62.6 percent (an increase of 13.1 percentage points from the previous year).

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

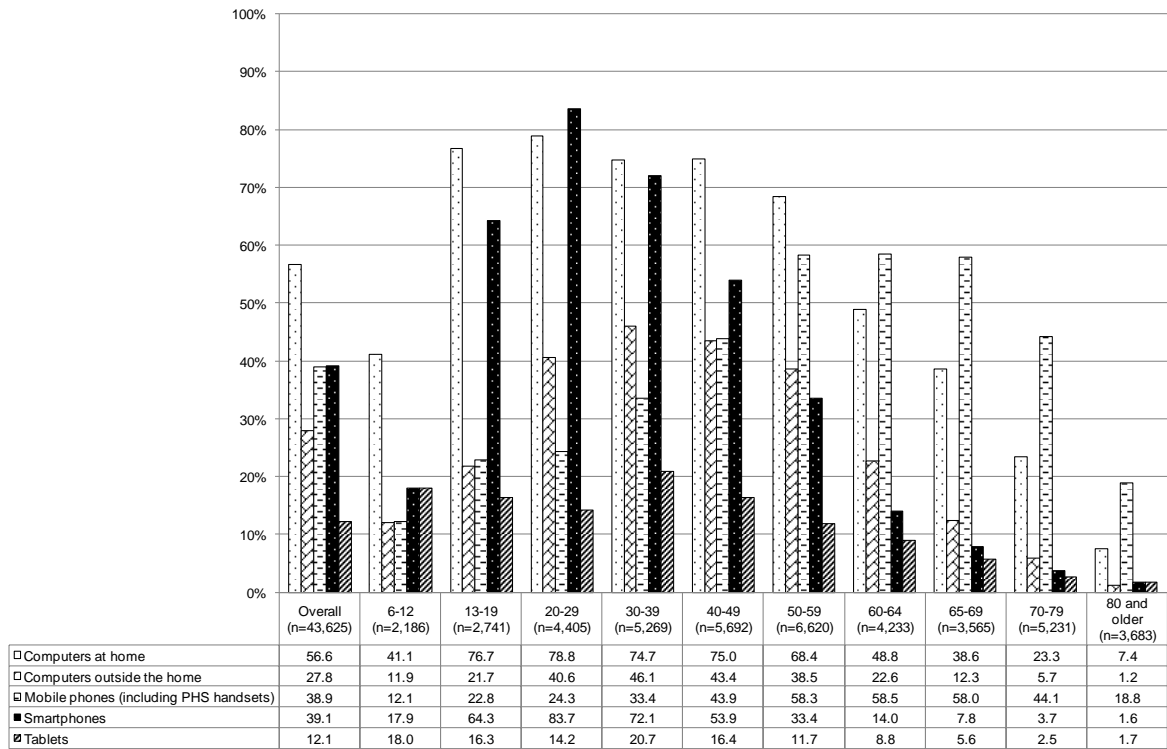


- Notes: 1. Figures for “mobile phones / PHS handsets” included PDAs from the end of 2009 to the end of 2012 and have included smartphones since the end of 2010. The ownership rate in this category excluding smartphones is 76.5 percent.
2. Figures for “smartphones” have been taken from the “mobile phones / PHS handsets” category.
3. For comparison purposes between years, these calculations do include non-responses.

(9) Proliferation of common communication devices (individuals)

The individual penetration rate of “mobile phones / PHS handsets” and “smartphones” was 38.9 percent and 39.1 percent respectively. The penetration rate of “smartphones” exceeded that of “mobile phones / PHS handsets” in each age bracket between 6 and 49, and exceeded that of “computers at home” in the 20 to 29 cohort.

Figure 1-17: Transitions in penetration rates of common communication devices (individuals)



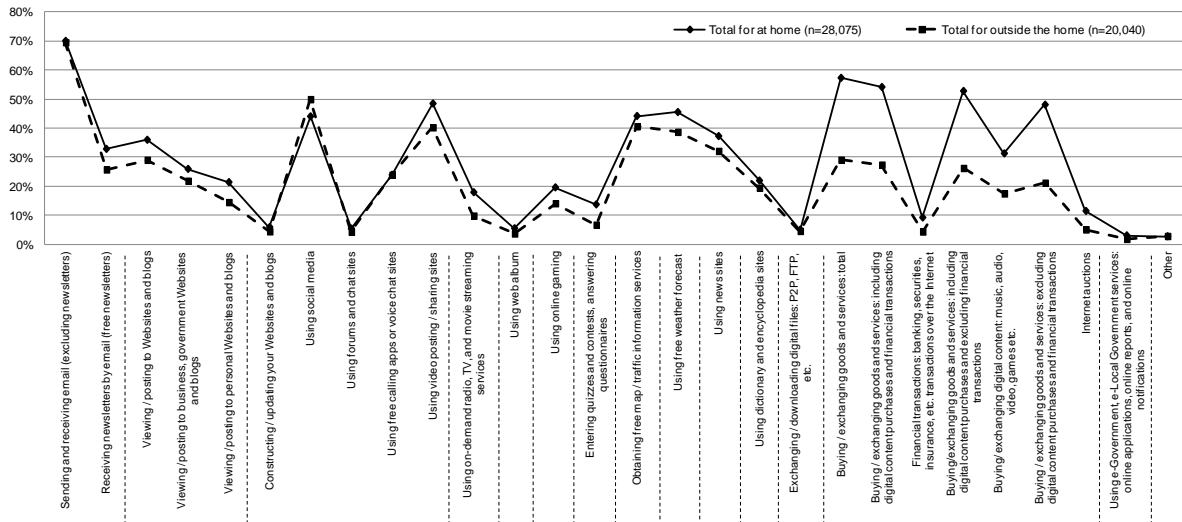
2. Current ICT Usage by Individuals

(1) Purposes of using the Internet

The most common use of the Internet when accessed at home was “sending and receiving email,” at 69.9 percent. This was followed by “buying / exchanging goods and services” (57.2 percent).

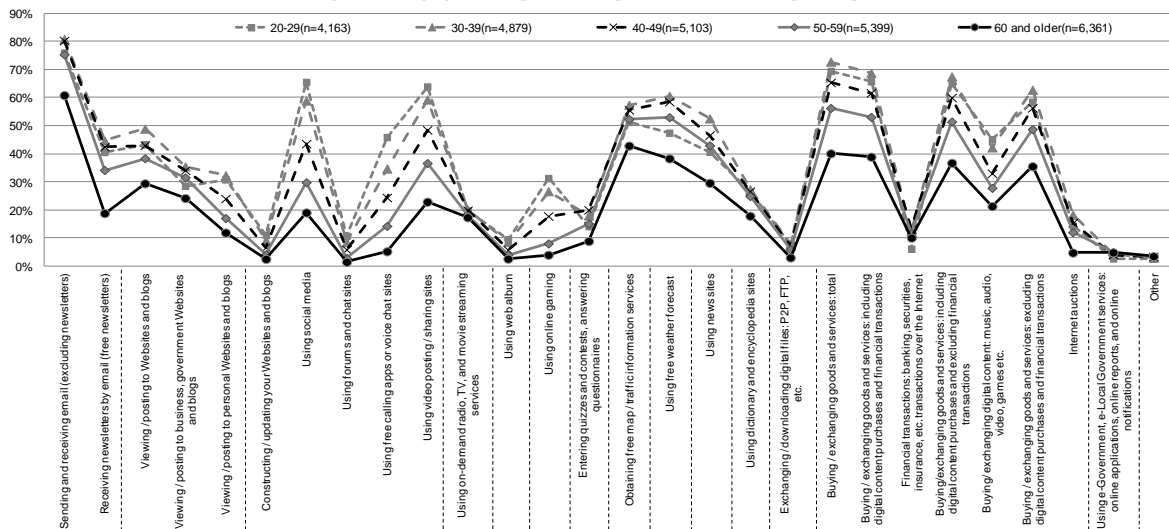
By age group, more than half of the 20 to 59 cohort used the Internet for “sending and receiving email,” “buying / exchanging goods and services” and “obtaining free map / traffic information services.”

Figure 2-1: Internet functions and services used at home and outside the home — end of 2013 (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 2013 (adults) (multiple responses accepted)

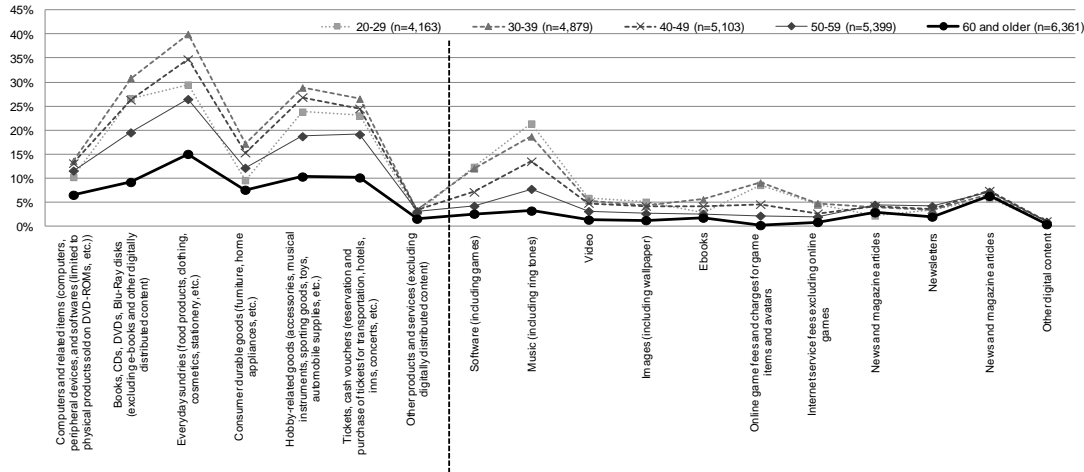


Note: Figures are the percentage of Internet users in the respective age group that have used the respective function or service.

(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 2013 (adults) (multiple responses accepted)

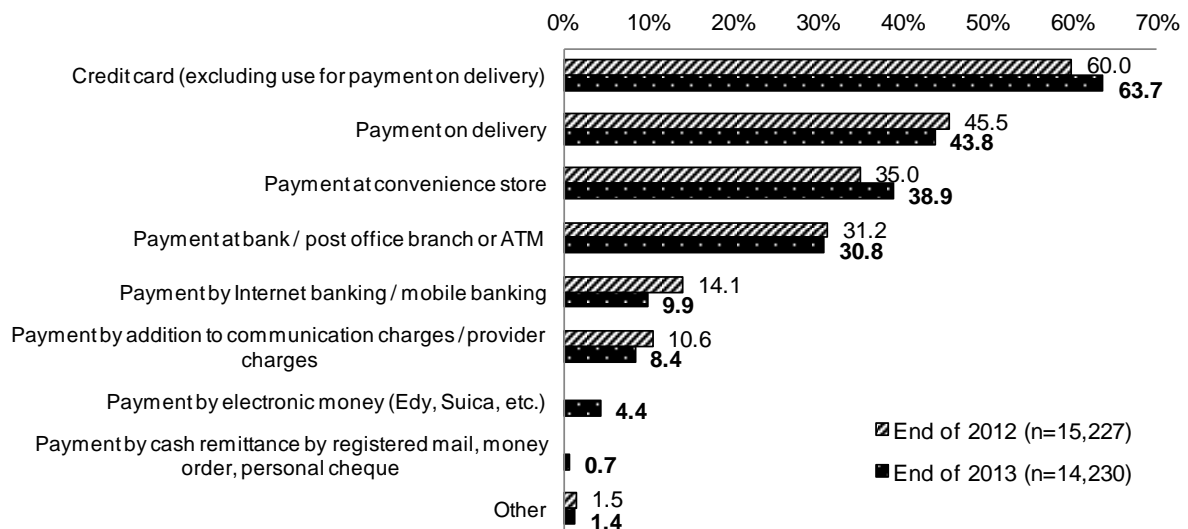


Note: Figures are the percentage of Internet users in the respective age group that have made a purchase in the respective category.

(3) Payment methods for purchases over the Internet

The most common payment method for purchases made over the Internet was “credit card (excluding use for payment on delivery),” at 63.7 percent. This was followed by “payment on delivery” (43.8 percent), “payment at convenience store” (38.9 percent), and “payment at bank / post office branch or ATM” (30.8 percent).

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



(Note) Names of options were changed in 2013.

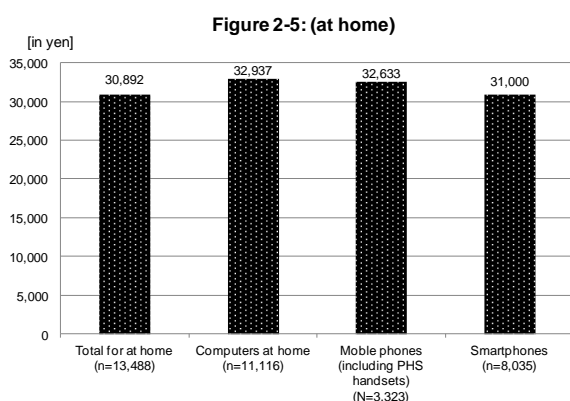
(4) Largest Internet purchase

Among purchasers aged 15 and older of goods and services over the Internet, the largest purchase made in 2013 at home averaged over all devices was 30,892 yen.

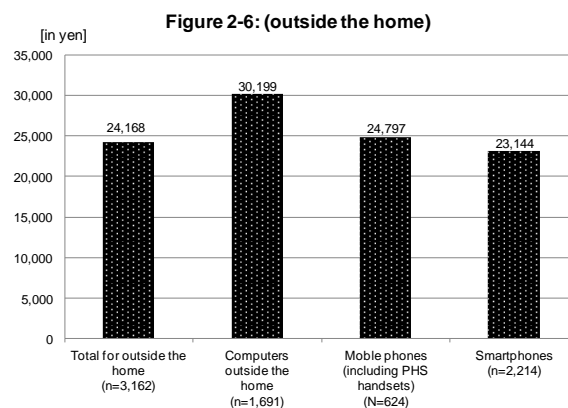
By device at home, the average largest purchase made from “computers at home” was 32,937 yen. This was followed by “mobile phones” at 32,633 yen and “smartphones” at 31,000 yen.

The average largest purchase made from all devices outside the home was 24,168 yen. By device outside the home, the average largest purchase made from “computers outside the home” was 30,199 yen. This was followed by “mobile phones” at 24,797 yen and “smartphones” at 23,144 yen.

Average largest purchase made over the Internet at home and outside the home — end of 2013



(Asked to respondents aged 15 and older who had made a purchase over the Internet at 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 “on-demand video sharing services,” at 95.1 percent. This was followed by “radio broadcast service” (11.5 percent).

Computers were the most common device used to access audio and video content as a whole, with the most common use of computers at home and smartphones outside the home.

The most common purpose was “to watch videos by artists, etc., that I like,” at 64.8 percent. This was followed by “to watch popular / talked-about videos / programs” (47.4 percent).

Figure 2-7: Audio and video content services used — end of 2013
(multiple responses accepted)

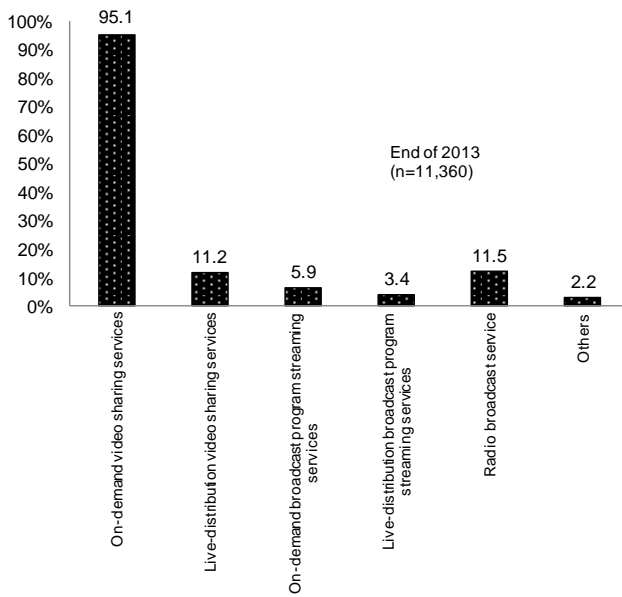


Figure 2-8: Devices used to access audio and video content — end of 2013
(overall figures include multiple responses)

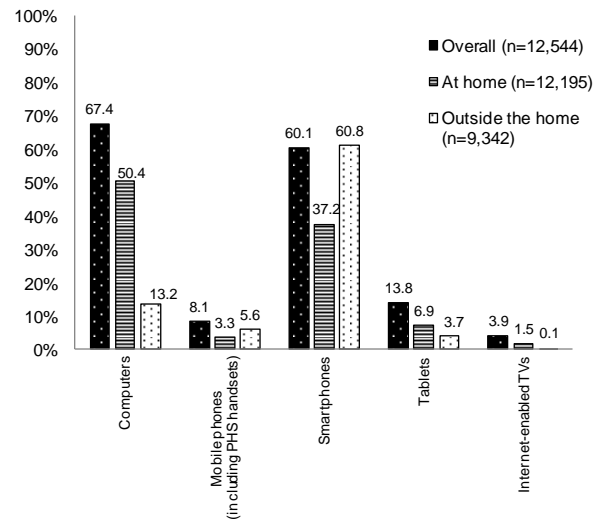


Figure 2-9: Frequency of audio and video content usage — end of 2013

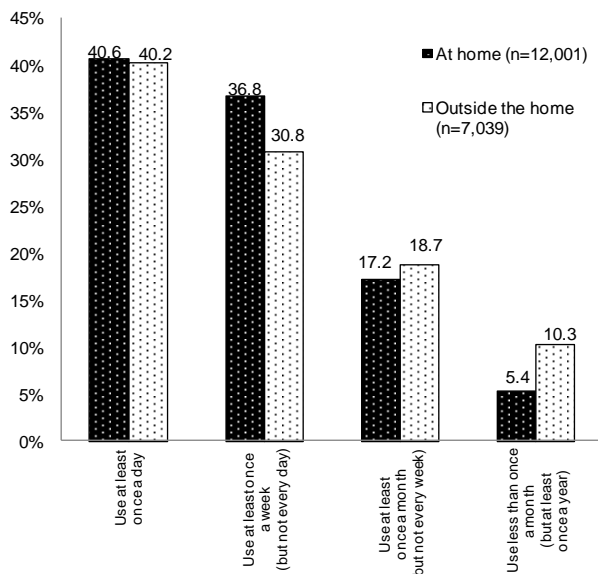
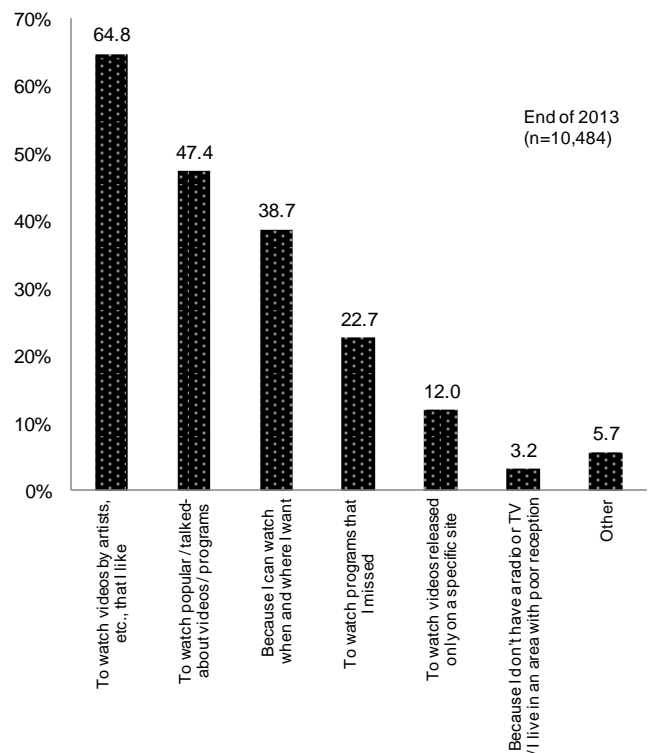


Figure 2-10: Purposes of audio and video content usage — end of 2013
(multiple responses accepted)

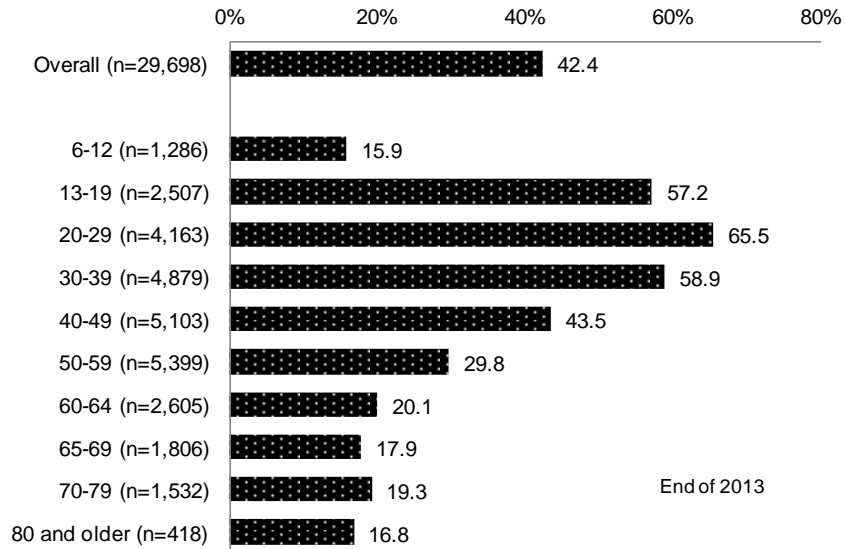


(6) Social media usage by individuals

42.4 percent of individuals used social media.

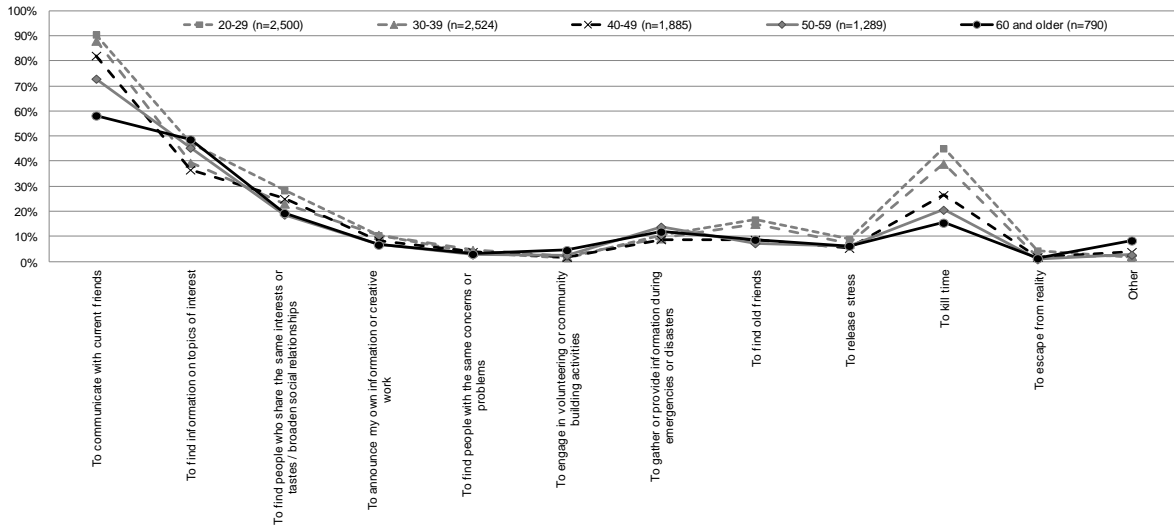
The common purposes of using social media by age group were “to communicate with current friends,” “to find information on topics of interest,” and “to kill time.”

Figure 2-11: Social media usage rate



(Note) Social media refers to information services in which one can communicate with multiple people on the Internet.

Figure 2-12: Purposes of using social media by age group (adults)



3. Current ICT Usage by Businesses

(1) Construction of company communication networks

Of all surveyed businesses, 90.6 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 55.4 percent. This was followed by “IP-VPN” (39.0 percent) and “wide-area Ethernet” (33.1 percent).

Figure 3-1: Construction of company communication networks — end of 2013

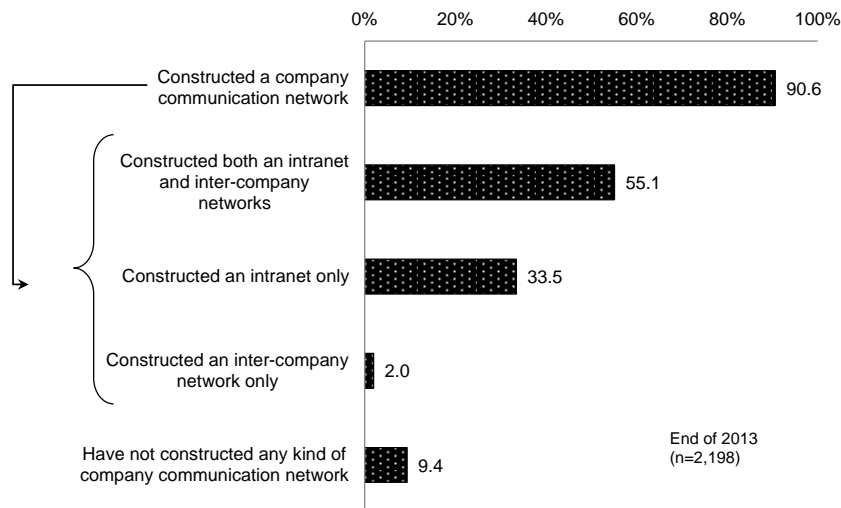
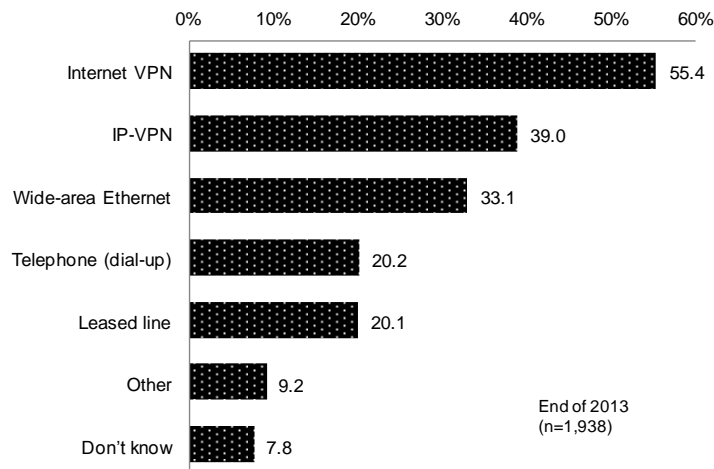


Figure 3-2: Primary communication services used on company communication networks — end of 2013 (multiple responses accepted)



(2) Social media usage by businesses

Of the surveyed businesses, 15.8 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 21.5 percent. This was followed by “wholesale / retail” (19.7 percent) and “financial / insurance” (18.8 percent).

Of businesses that said they use social media, the most common purpose / application was “present / promote products or events,” at 65.7 percent. This was followed by “provide periodic information” (50.5 percent) and “company profile / recruiting” (34.4 percent).

Figure 3-3: Social media usage by businesses

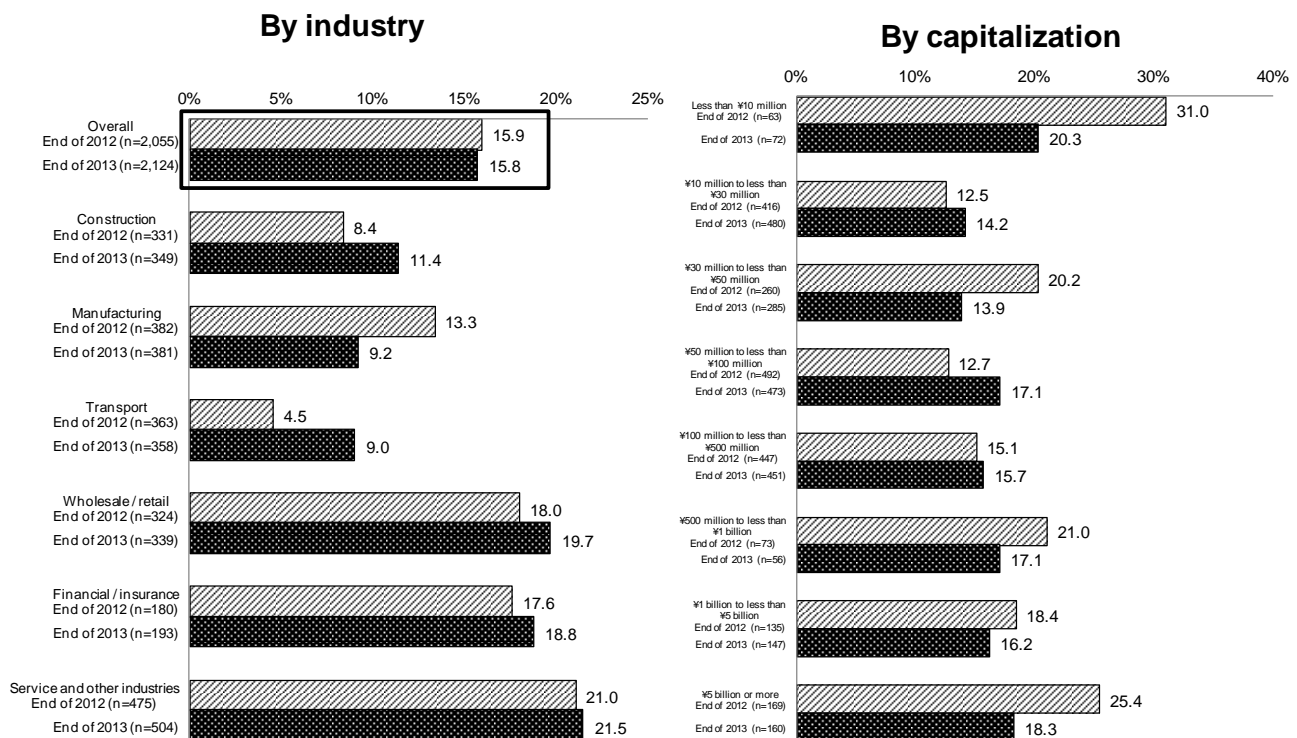
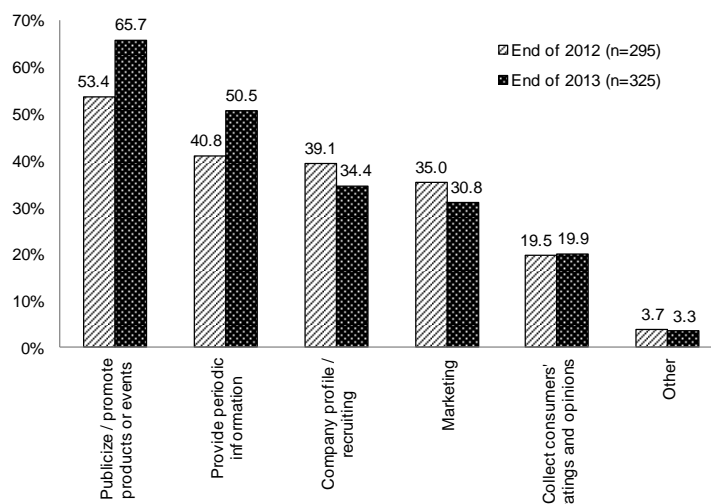


Figure 3-4: Purpose / application of social media by businesses — end of 2013 (multiple responses accepted)



(3) E-commerce usage

48.6 percent of businesses engaged in e-commerce (purchasing or selling over the Internet). By industry, “wholesale / retail” had the highest usage rate, at 64.6 percent. This was followed by “financial / insurance” (60.6 percent) and “manufacturing” (46.6 percent).

Among businesses that used the Internet for sales, the most common Internet sales model was “e-store (own site),” at 64.6 percent. This was followed by “e-store (store in an e-mall)” (43.9 percent).

Figure 3-5: E-commerce usage by industry — end of 2013 (multiple responses accepted)

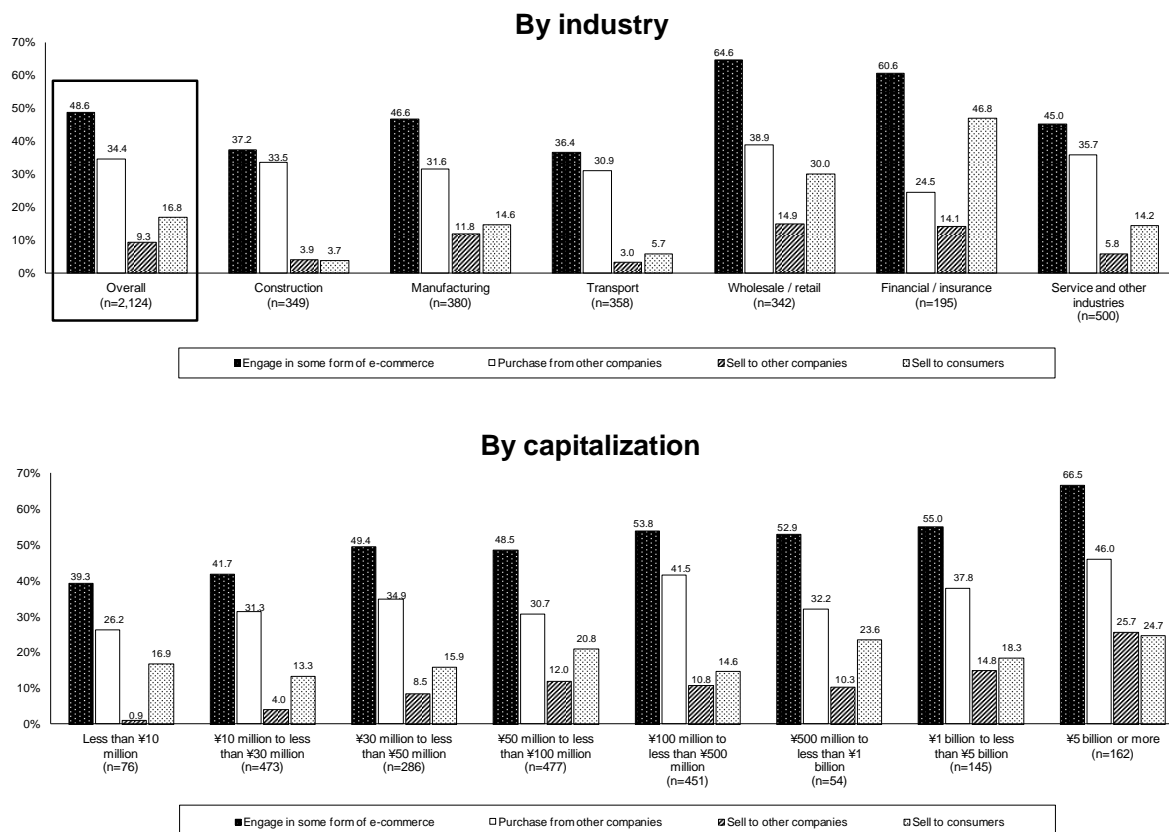
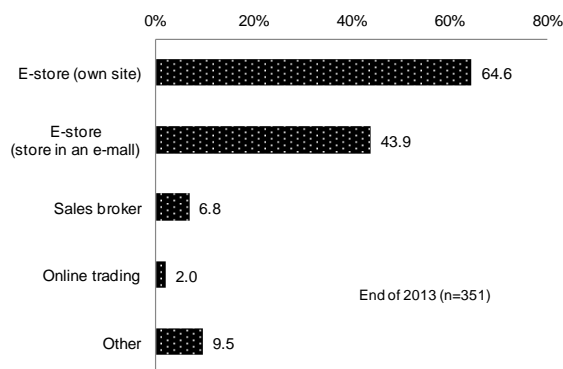


Figure 3-6: Internet sales models — end of 2013 (multiple responses accepted)



(4) Use of Internet advertising

Of the surveyed businesses, 23.0 percent advertise using the Internet. By industry, “financial / insurance” had the highest advertising rate, at 55.8 percent. This was followed by “wholesale / retail” (32.1 percent) and “service and other industries” (28.9 percent).

The most common type of Internet advertisement was “banner ads,” at 52.7 percent. This was followed by “newsletters” (41.6 percent) and “text ads” (32.2 percent).

Figure 3-7: Internet advertising usage — end of 2013

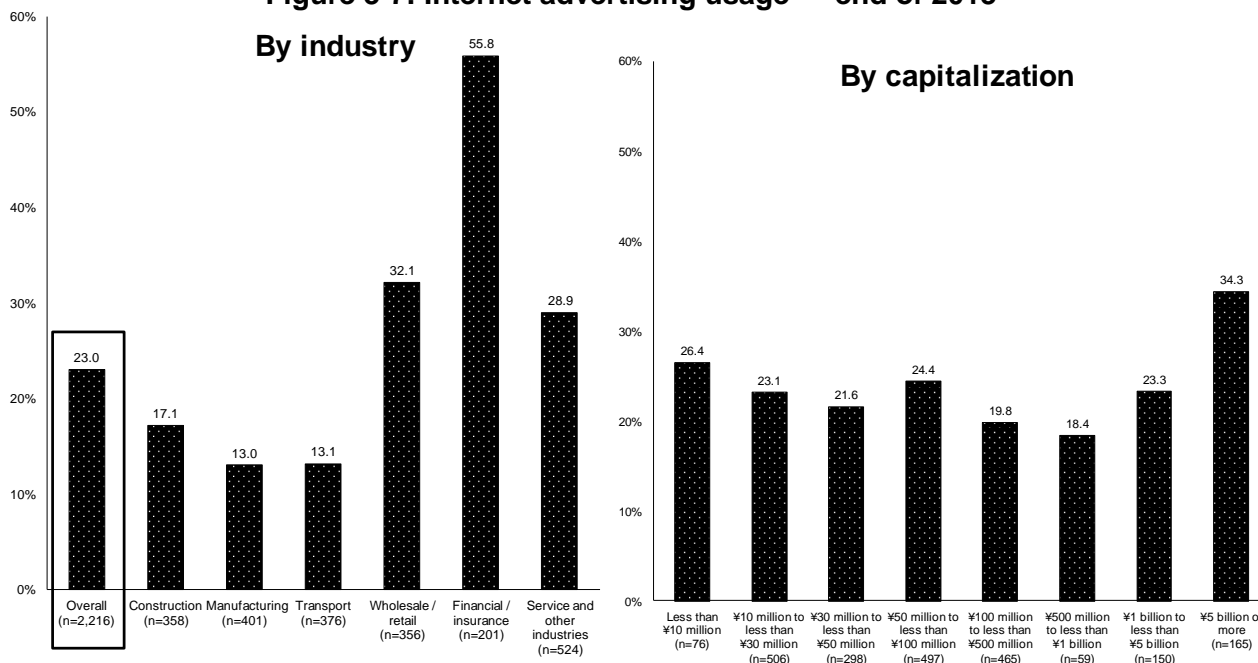
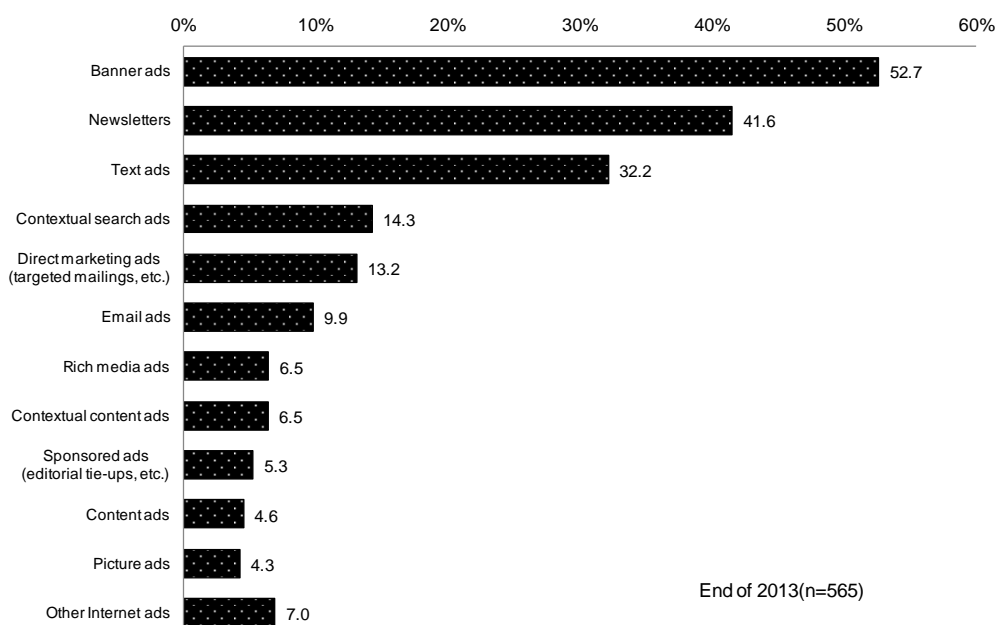


Figure 3-8: Types of Internet advertisements — end of 2013 (multiple responses accepted)



- 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, 49.3 percent have adopted services, systems, or other ICT tools that use wireless communication technology. The most common tool was “contactless IC cards,” at 28.2 percent. This was followed by “network cameras, sensors, or other network-enabled devices” (27.6 percent).

Examining ICT tool adoption rates by industry found that “manufacturers” had the highest “RFID tag” adoption rate, at 12.4 percent, and that “financial / insurance” had the highest “contactless IC cards” adoption rates, at 60.4 percent. The construction industry had the highest “new network-enabled devices” adoption rate, at 34.5%, and the transport industry had the highest “GPS, mobile phone, or other location devices” adoption rate, at 43.9 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 2013

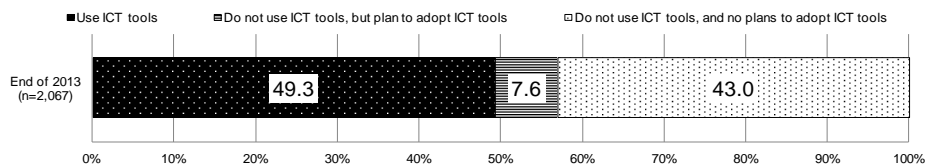
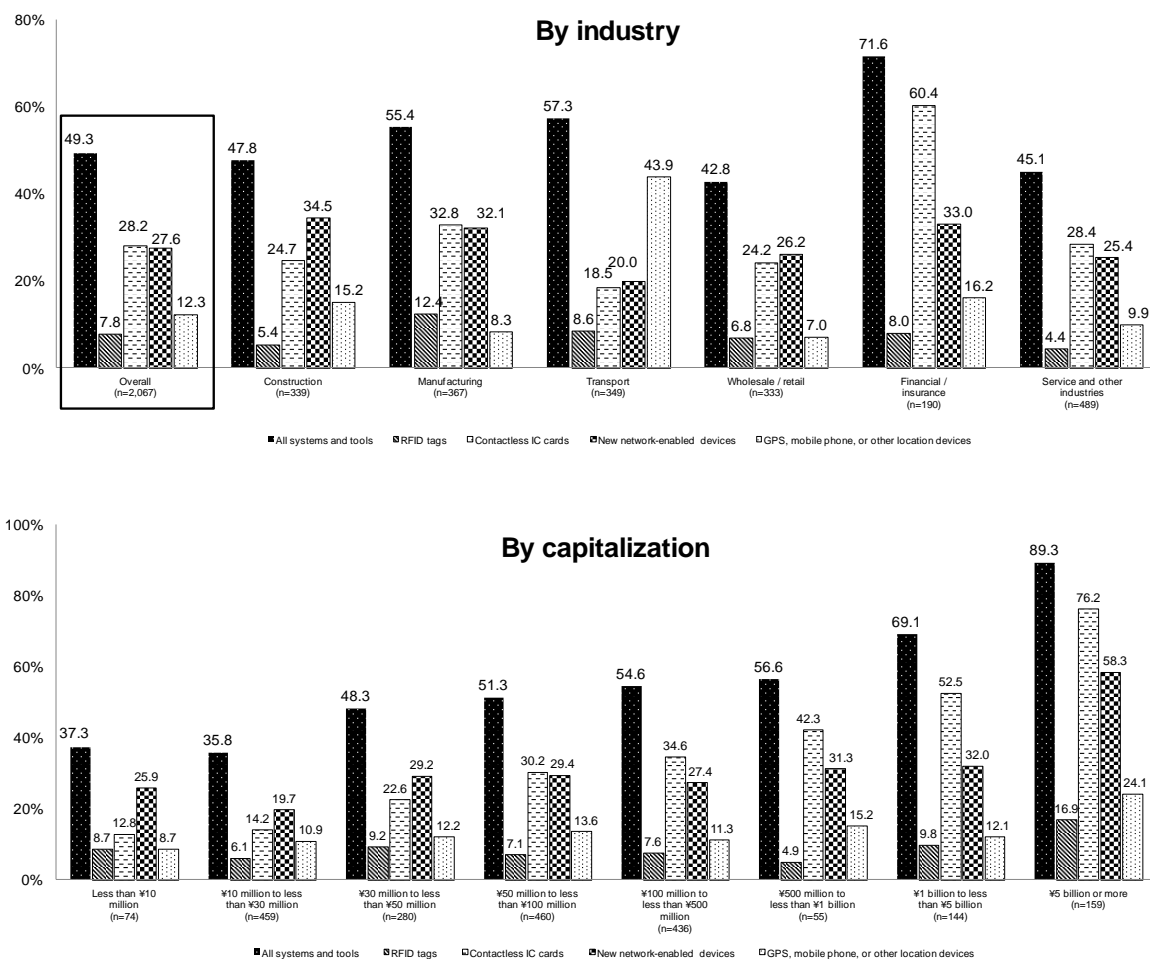


Figure 3-10: ICT tool adoption by industry and capitalization — end of 2013



(6) Cloud computing service usage

33.1 percent of businesses answered that they use cloud computing services (cloud services) in at least some of their operations. This was a 4.9 percentage point increase from the 28.2 percent figure at the end of 2012. By capitalization size, more than half of businesses with 5 billion yen or more in capital used cloud services.

86.8 percent of businesses had an impact by using cloud computing services.

Figure 3-11: Cloud service usage

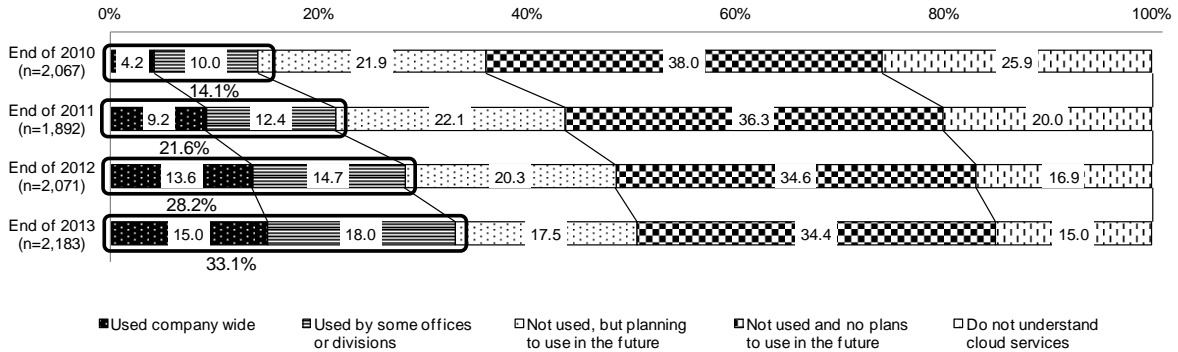


Figure 3-12: Cloud service usage by industry and capitalization

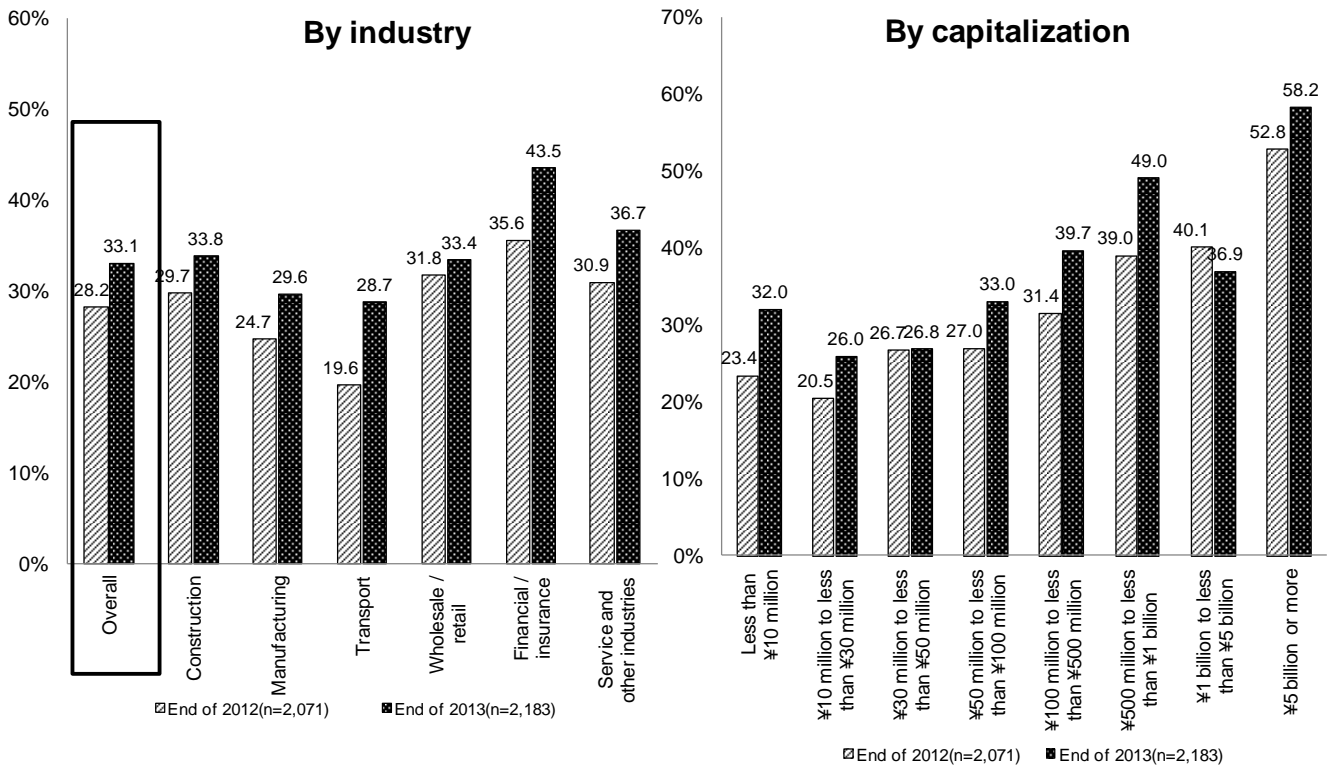


Figure 3-13: Cloud services used by businesses — end of 2013 (multiple responses accepted)

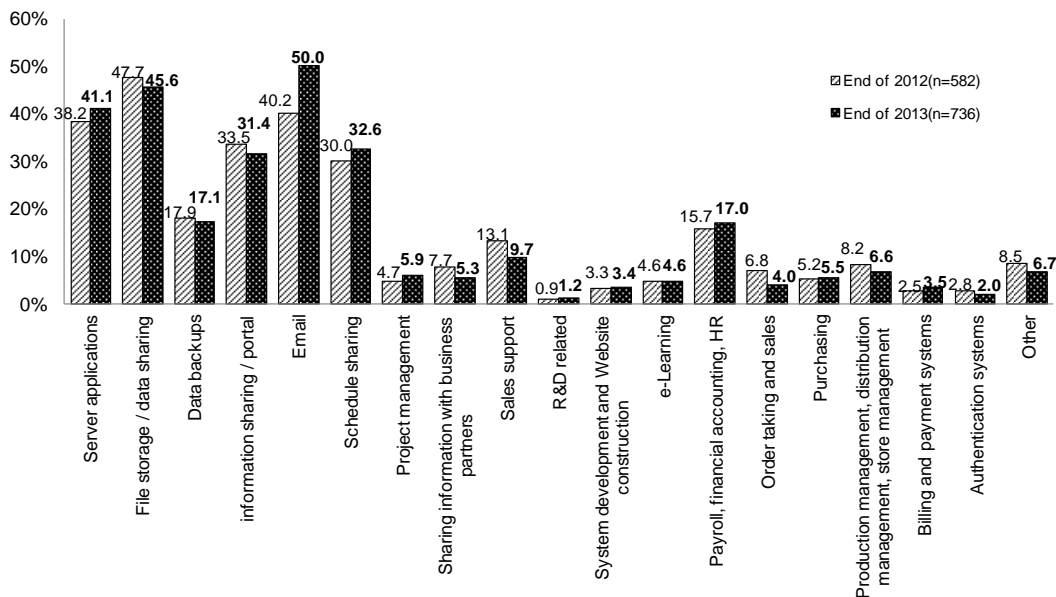


Figure 3-14: Impact of cloud computing services — end of 2013

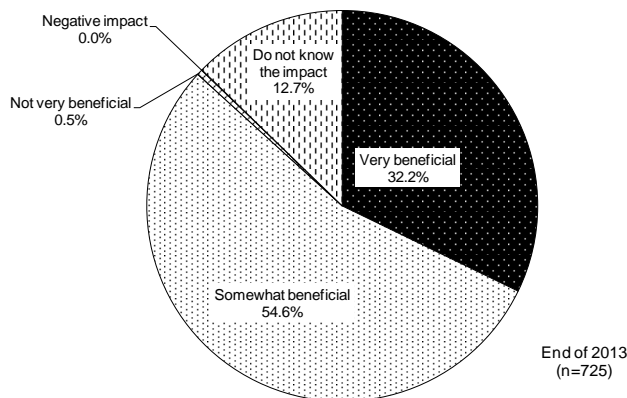
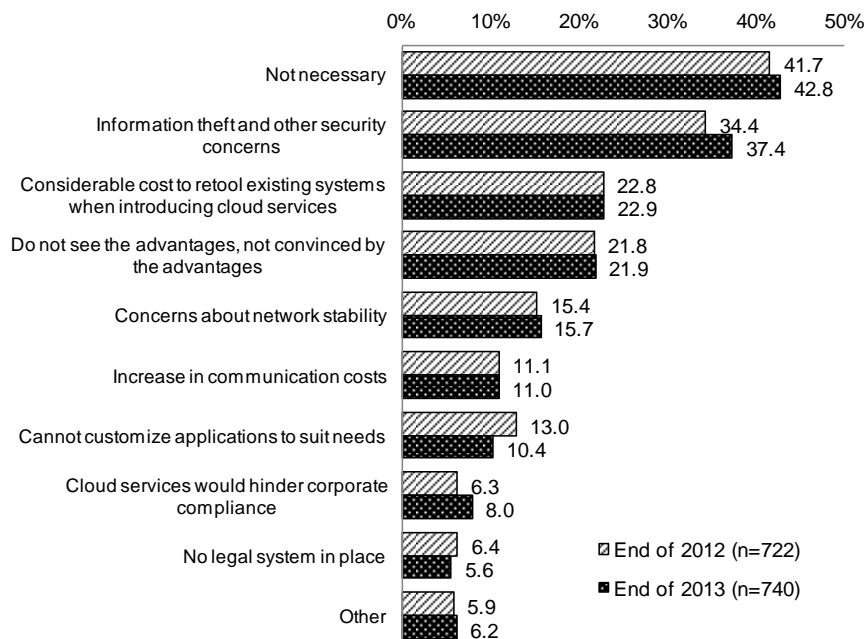


Figure 3-15: Reasons for not using cloud services — end of 2013 (multiple responses accepted)



(7) Telework

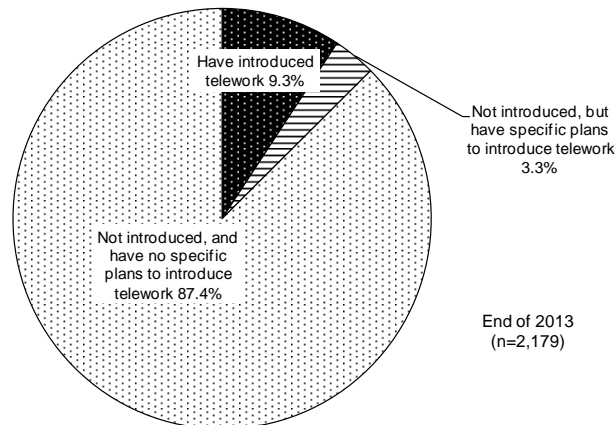
Of the surveyed businesses, 9.3 percent have introduced telework. By capitalization size, 38.0 percent of businesses with 5 billion yen or more in capital have introduced telework.

The most common percentage of telework employees was “less than 5 percent,” at 55.3 percent. This was followed by “10 percent to less than 30 percent” (22.6 percent) and “5 percent to less than 10 percent” (7.3 percent).

The highest ranked purpose for introducing telework was “raise efficiency (productivity) of routine business processes,” at 46.2 percent. This was followed by “reduce workers’ transportation times” (44.3 percent) and “prepare for business continuity in the event of emergencies (earthquakes, super-flu outbreaks, etc.)” (23.5 percent).

Among businesses that have introduced telework, more than 80 percent (83.9 percent) have found telework either “very beneficial” or “somewhat beneficial.”

Figure 3-16: Telework introduction — end of 2013



(Note) Telework includes working from home, satellite office work, and mobile work.

Figure 3-17: Telework introduction by capitalization — end of 2013

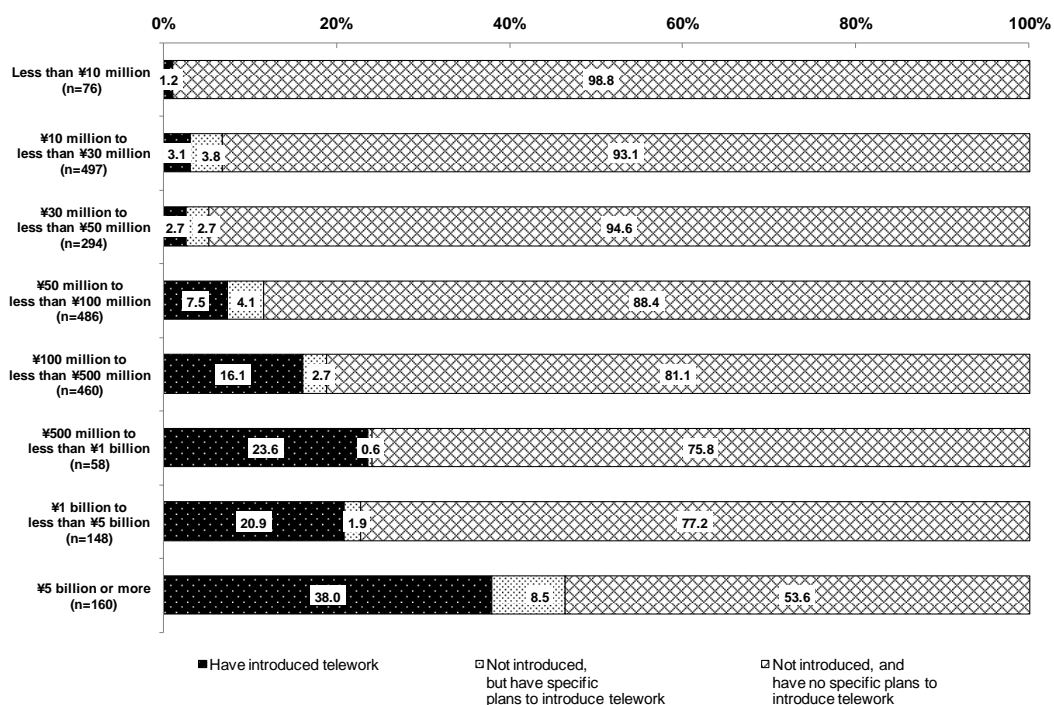


Figure 3-18: Percentage of employees using telework — end of 2013

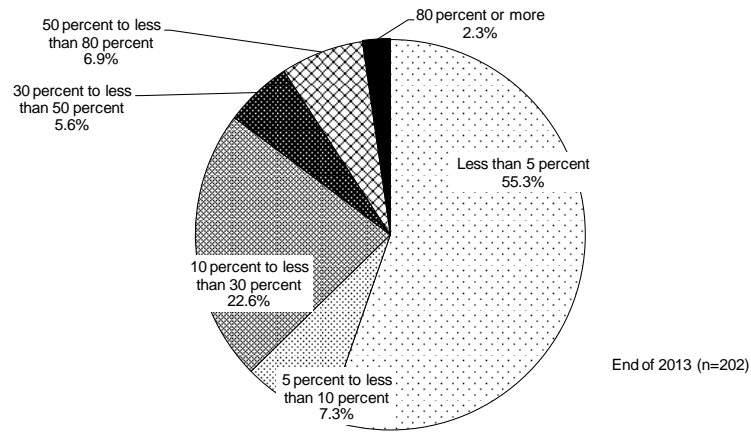


Figure 3-19: Purposes of introducing telework — end of 2013 (multiple responses accepted)

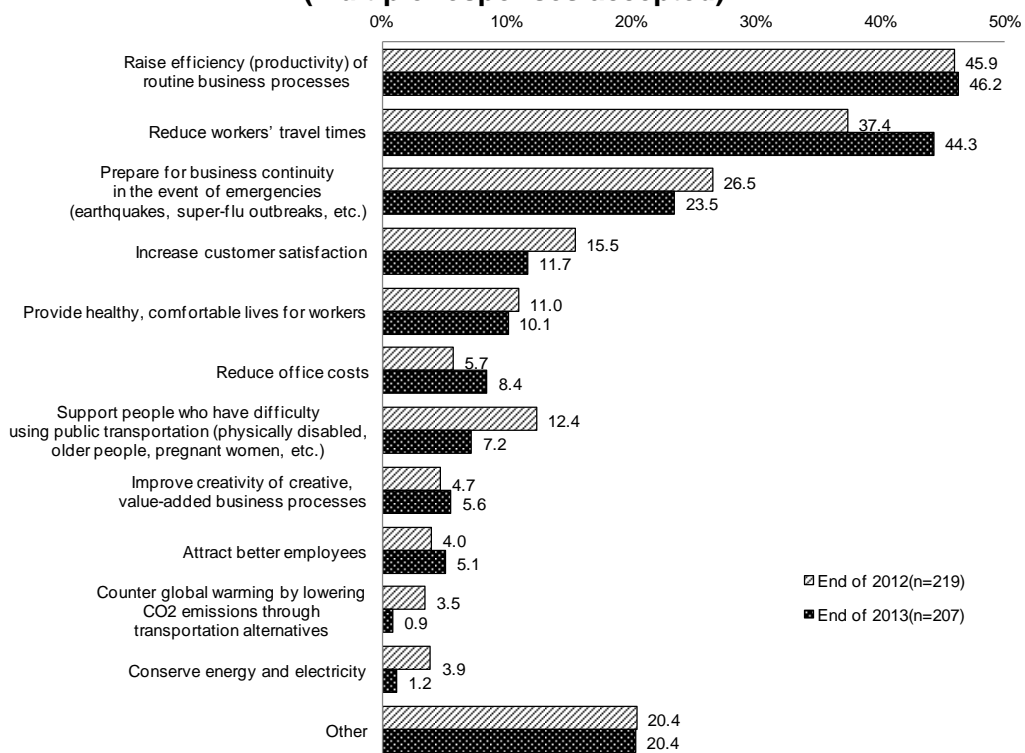
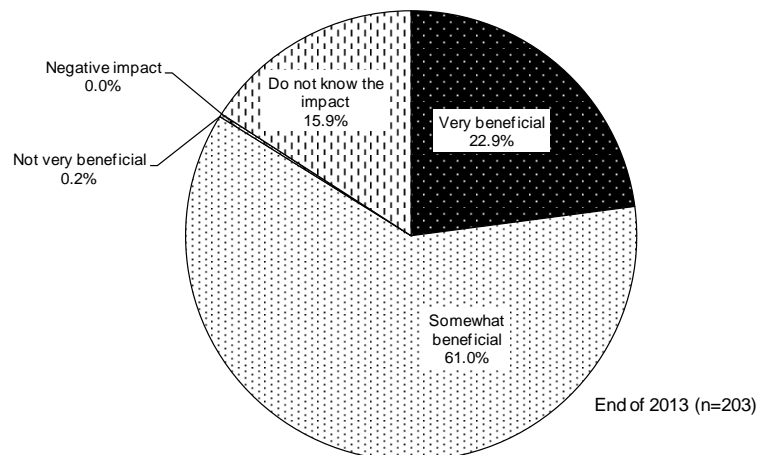


Figure 3-20: Telework benefits — end of 2013

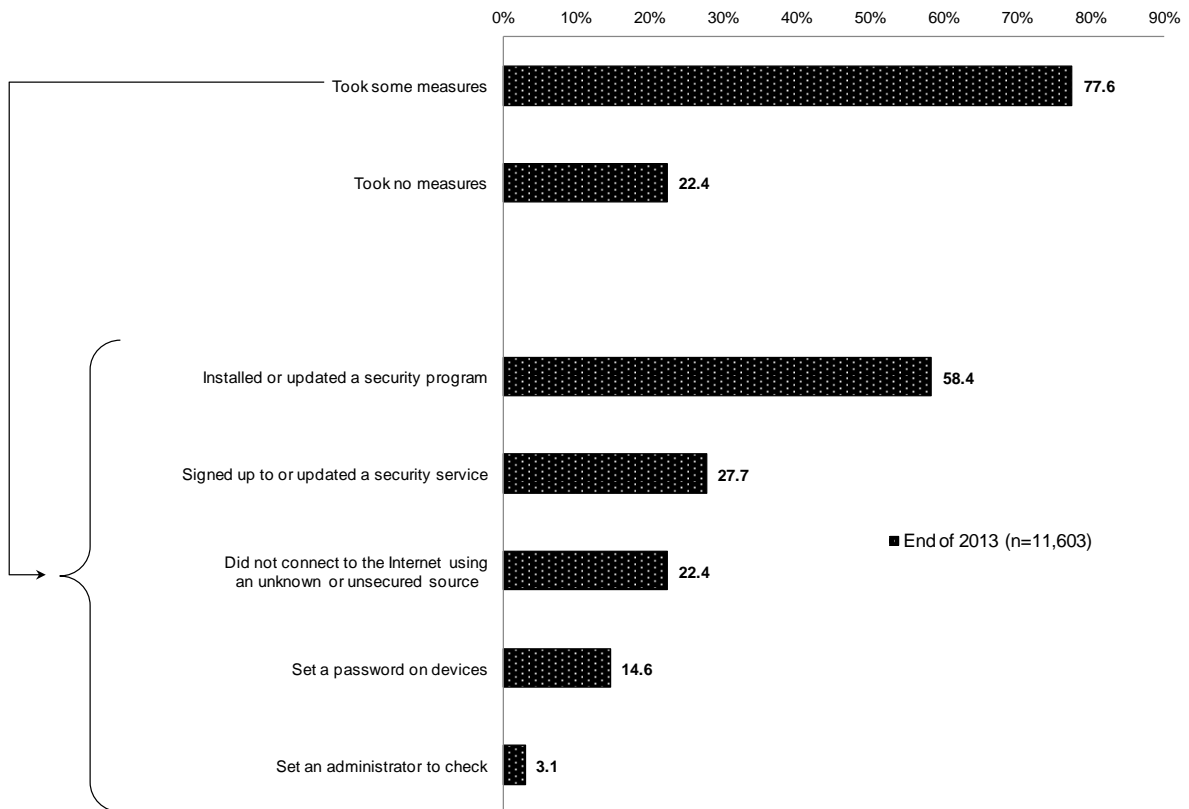


4. Safety and security efforts

(1) State of security measures (households)

Among households that use the Internet, 77.6 percent have taken some security measures. The most common security measure taken was “installed or updated a security program,” at 58.4 percent. This was followed by “signed up to or updated a security service” (27.7 percent) and “did not connect to the Internet using an unknown or unsecured source” (22.4 percent).

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

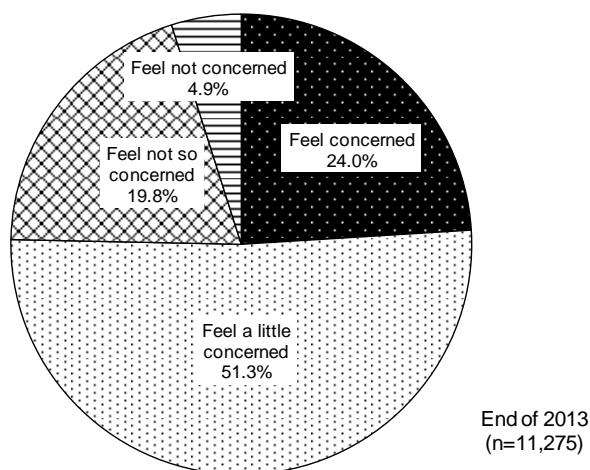


(2) Concerns about using the Internet (households)

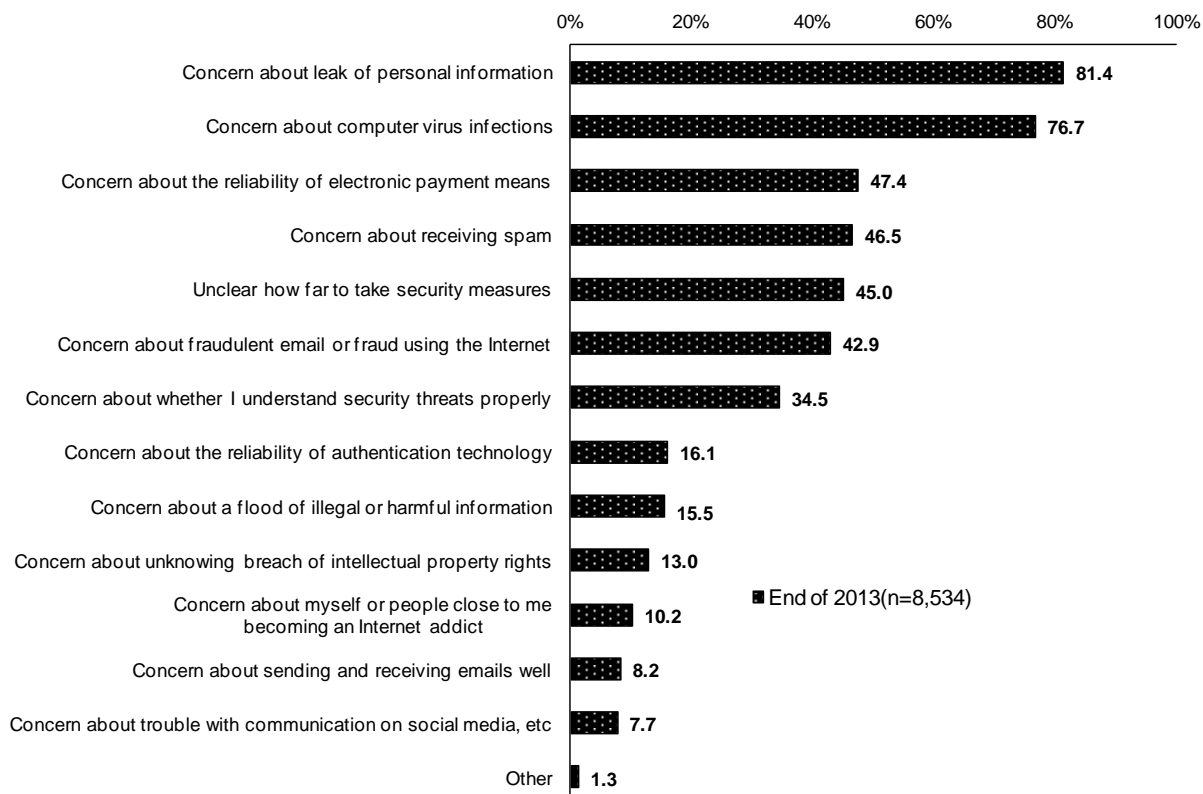
70 percent or more of households (75.3 percent) feel some concern — either “feel a little concerned” or “feel concerned” — about using the Internet.

Among households with concerns about using the Internet, the largest concern was “concern about leak of personal information” at 81.4 percent. This was followed by “concern about computer virus infections” (76.7 percent) and “concern about the reliability of electronic payment means” (47.4 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)

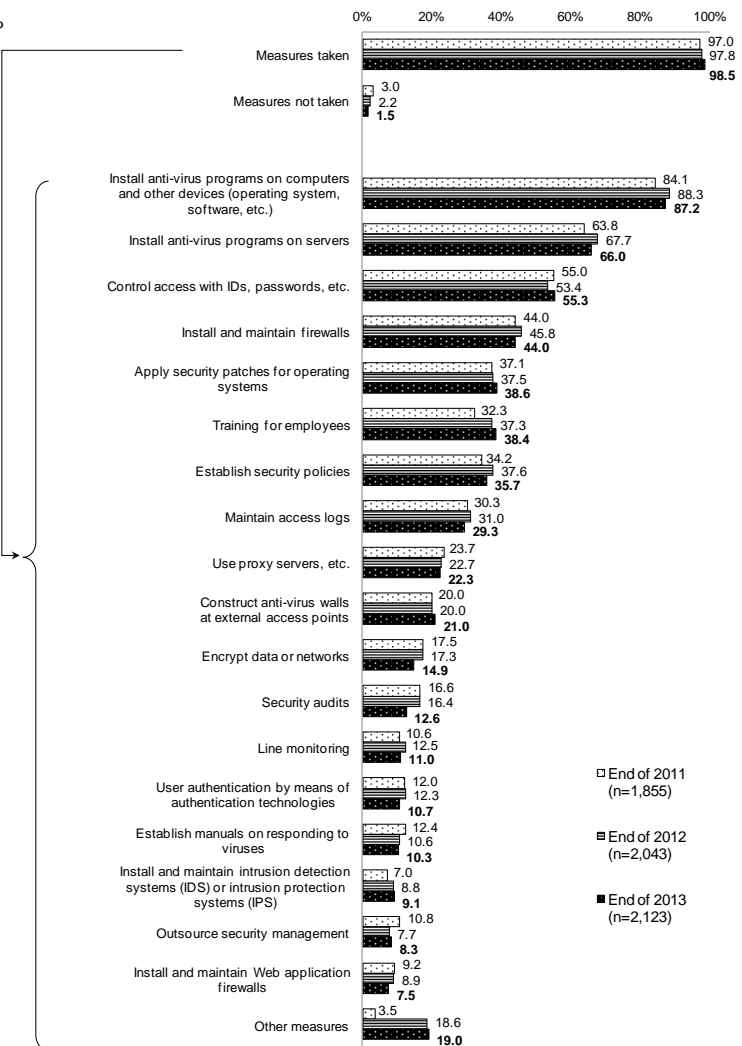
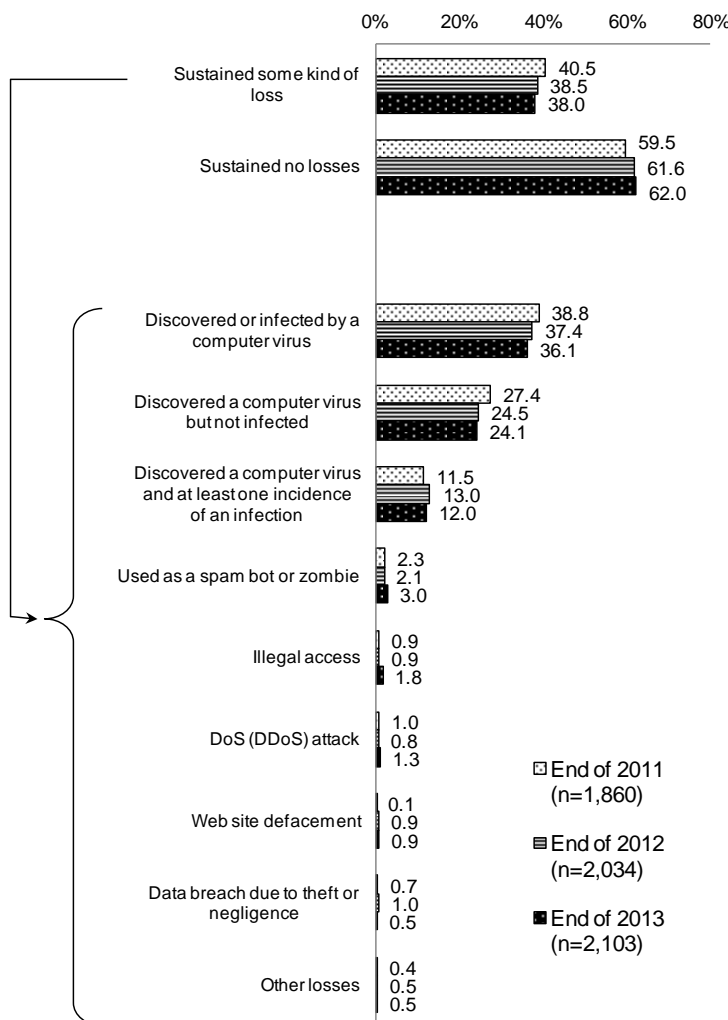
Among businesses that used information-communication networks, 38.0 percent reported some kind of loss resulting from a security breach in the past year. The most common security breach was “discovered or infected by a computer virus,” at 36.1 percent.

Of businesses that use the Internet, intranets, or other networks, 98.5 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 87.2 percent. This was followed by “install anti-virus programs on servers” (66.0 percent) and “control access with IDs, passwords, etc.” (55.3 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)

19.8 percent of businesses reported detecting traces of targeted emails in the past year. Of these, 1.2 percent experiences at least one incidence of a virus infection.

82.5 percent of businesses had taken security measures against targeted emails. The most common security measure was “install anti-virus programs on computers and other devices (operating system, software, etc.),” at 67.9 percent. This was followed by “install anti-virus programs on servers” (53.1 percent) and “apply security patches for operating systems” (30.6 percent).

Figure 4-6: Losses from targeted emails — end of 2013

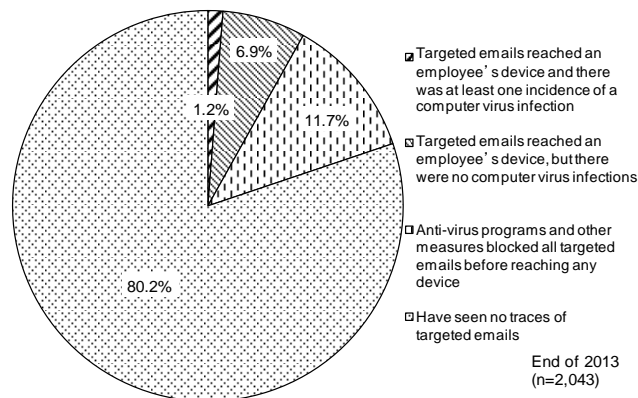
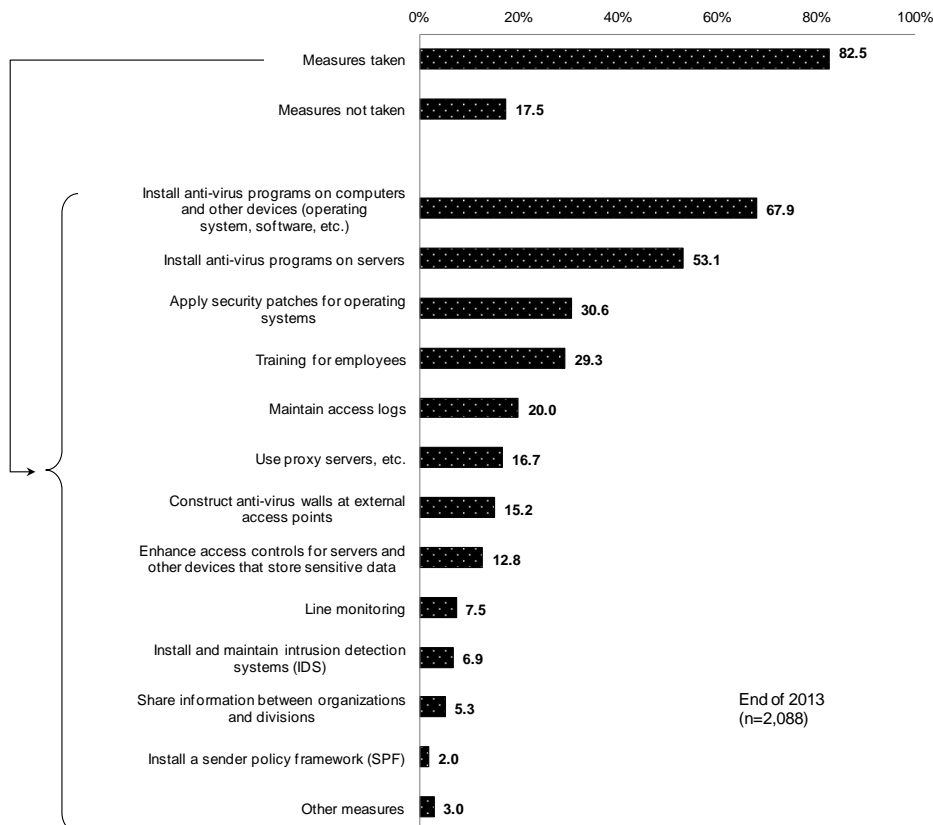


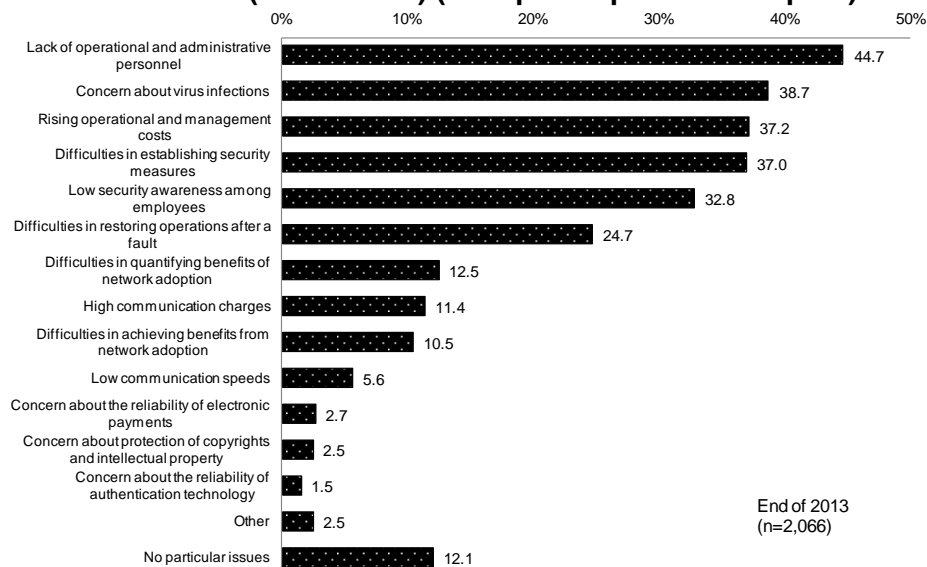
Figure 4-7: Security measures against targeted emails — end of 2013 (multiple responses accepted)



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

The most common issue associated with Internet, intranets, and other network usage was “lack of operational and administrative personnel” at 44.7 percent. This was followed by “concern about virus infections,” (38.7 percent) and “rising operational and management costs” (37.2 percent).

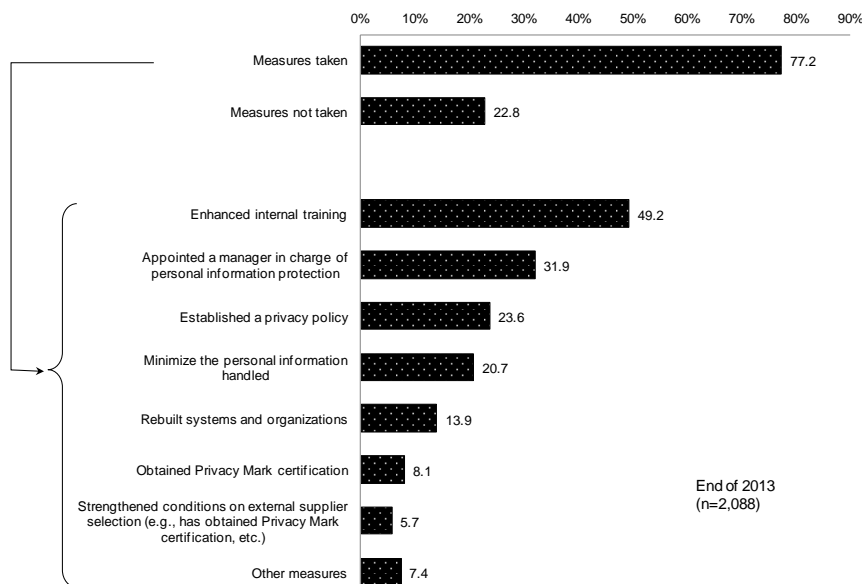
Figure 4-8: Issues associated with Internet, intranets, and other network usage — end of 2013 (businesses) (multiple responses accepted)



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

Among the surveyed businesses, 77.2 percent have taken some personal information protection measures. The most common measure was “enhanced internal training,” at 49.2 percent. This was followed by “appointed a manager in charge of personal information protection” (31.9 percent) and “established a privacy policy” (23.6 percent).

Figure 4-9: State of personal information protection measures — end of 2013 (businesses) (multiple responses accepted)

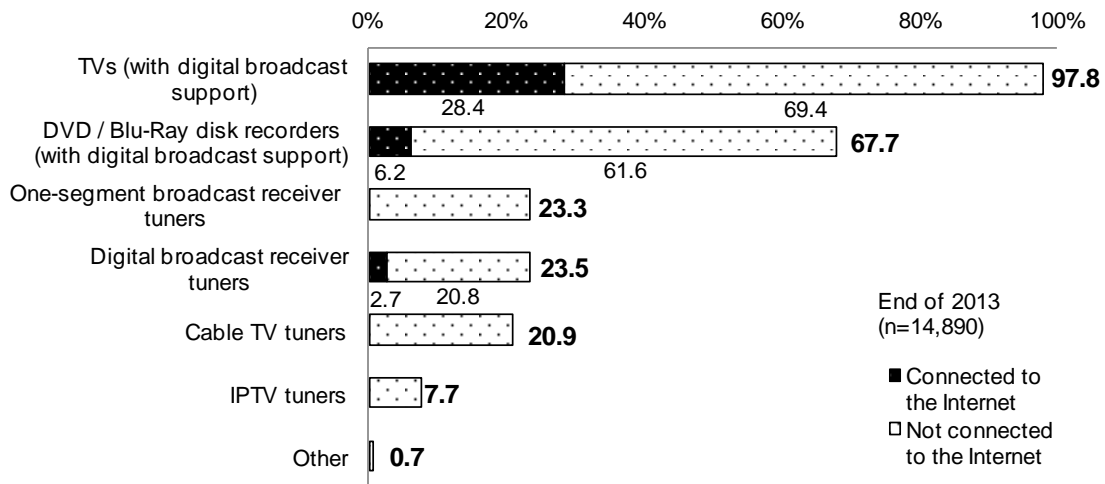


5. Usage of Digital Television Broadcasting

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

Ownership of TVs that support digital broadcasts among households was 97.8 percent. Of these, 28.4 percent were connected to the Internet.

Figure 5-1: Ownership of digital TV broadcast receivers — end of 2013 (households)



(2) Data broadcast function usage of digital TV (households)

74.4 percent of households used data broadcast function in the past year. This percentage rose to 81.3 percent in households headed by someone between 40 and 49 and to 80.9 percent in households headed by someone between 30 and 39.

The most common use of the data broadcast function was “obtain news, weather, transportation, and other information,” at 84.8 percent. This was followed by “participate in quizzes, questionnaires, and other program projects” (44.1 percent).

Figure 5-2: Data broadcast function usage of digital TV — end of 2013 (households)

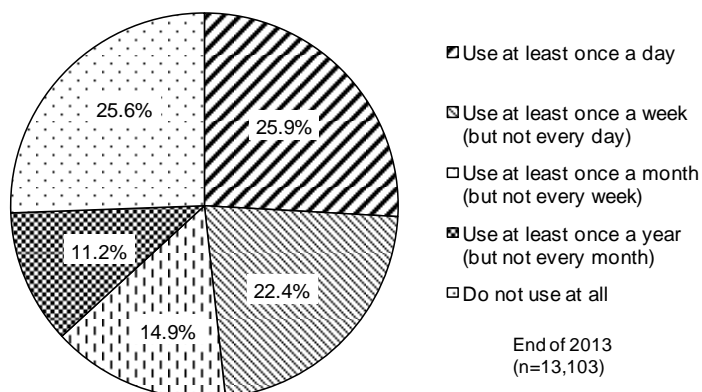


Figure 5-3: Data broadcast function usage by age of household head — end of 2013

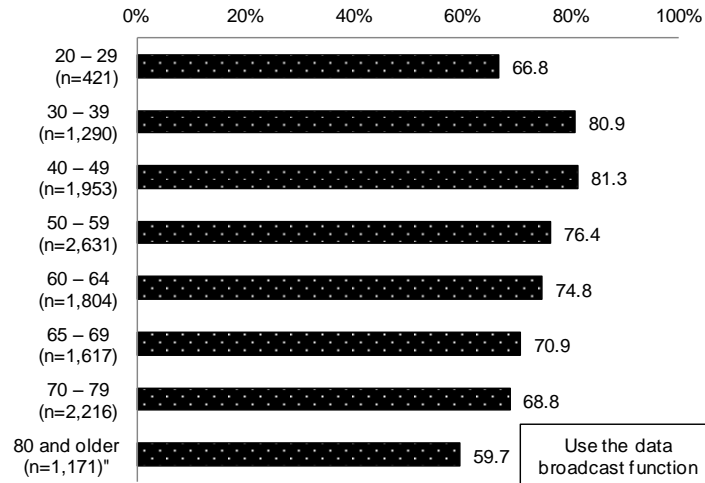
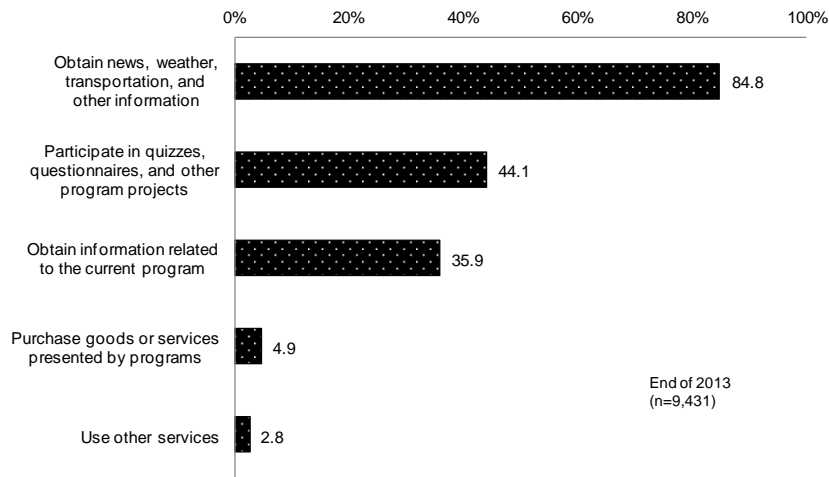


Figure 5-4: Use of data broadcast function (households)



(3) Internet access function usage of digital TV (households)

16.0 percent of households used this Internet access function in the past year. This percentage rose to 19.7 percent in households headed by someone between 60 and 64 and to 19.0 percent in households headed by someone between 50 and 59.

The most common use of Internet access function was “web uses,” at 39.7 percent. This was followed by “video on demand or other streamed programming” (34.9 percent).

Figure 5-5: Internet access function usage of digital TV — end of 2013 (households)

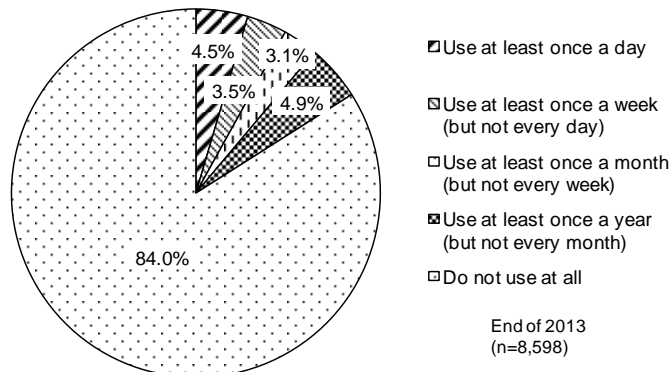


Figure 5-6: Internet access function usage by age of household head — end of 2013

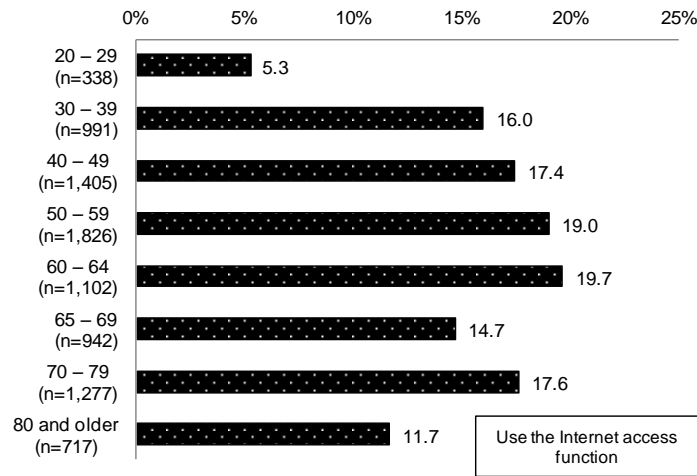
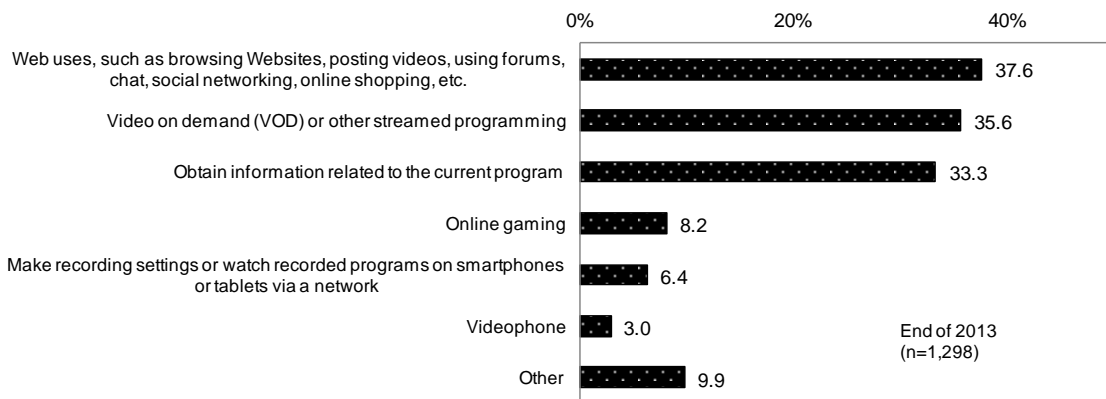


Figure 5-7: Use of Internet access function (households)



(4) Intention of Internet access function usage of digital television (households)

60.9 percent of households were inclined to use the Internet access function.

The most common intention of Internet access function usage was “video on demand or other streamed programming,” at 27.4 percent. This was followed by “videophone” (24.1 percent) and “make recording settings or watch recorded programs” (21.8 percent).

Figure 5-8: Intention of Internet access function usage of digital television (households)

