

July 17, 2015

Communications Usage Trend Survey in 2014 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 businesses at the end of 2014.

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>)

[Highlights of the Survey]

1. **Internet usage in the older group has been expanding.**
(60 to 69 cohort: 73.1 percent in 2013 → 75.2 percent in 2014; 70 to 79 cohort: 48.9 percent in 2013 → 50.2 percent in 2014)
2. **The growth in household ownership of smartphones slowed down.**
(62.6 percent in 2013 → 64.2 percent in 2014)
3. **Of the surveyed businesses, 11.5 percent introduced telework. The survey asked the respondents about the type of telework introduced for the first time. The most common type was “mobile work,” followed by “working from home” and “satellite office work.”**

Survey Outline

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

	Households	Businesses
Survey period	January – February 2015	
Survey area	Nationwide	
Scope of attributes / Level of survey	Households headed by someone aged 20 or older (as of April 1, 2014) and household members aged 6 or older	Businesses with 100 or more regular employees in industries other than public affairs
Number of samples [Effective mails]	40,592 [38,316]	5,140 [3,629]
Effective responses [%]	16,529 households (43,404 persons) [43.1%]	2,136 businesses [58.9%]
Survey items	Communication services usage, communication-device ownership, etc.	
Survey method	Survey form sent and collected by postal mail or online (email)	

Contact information

ICT Economic Research Office, ICT

Strategy Policy Division, Global ICT Strategy Bureau, MIC

Tel.: +81-3-5253-5744 / Fax: +81-3-5253-6041

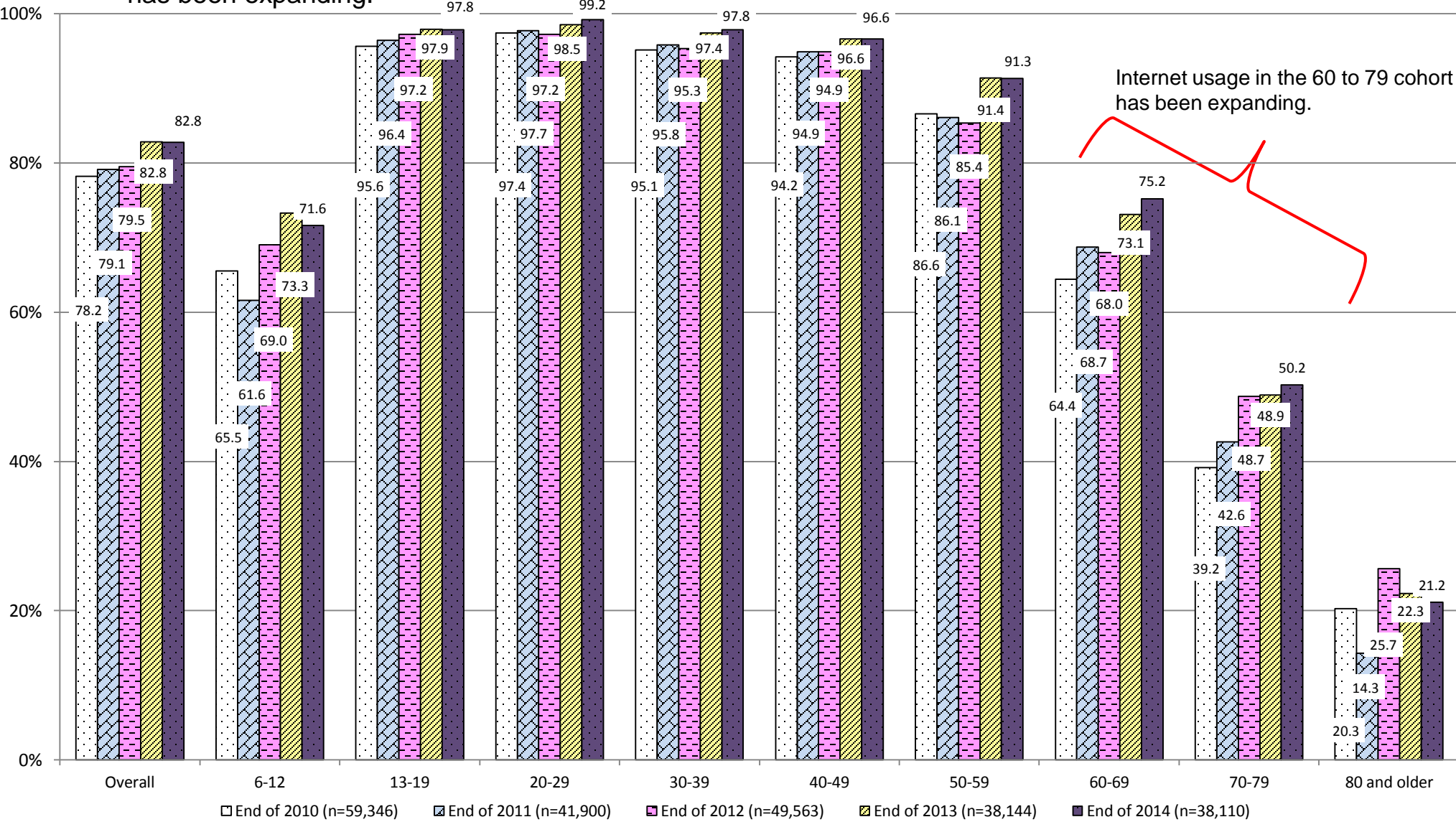
Highlights of the Communications Usage Trend Survey in 2014

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. Internet Usage Trends (1) — Internet Usage by Age Group

Internet usage in the 13 to 59 cohort has exceeded 90 percent, while Internet usage in the 60 to 79 cohort has been expanding.

Internet usage in the 60 to 79 cohort has been expanding.

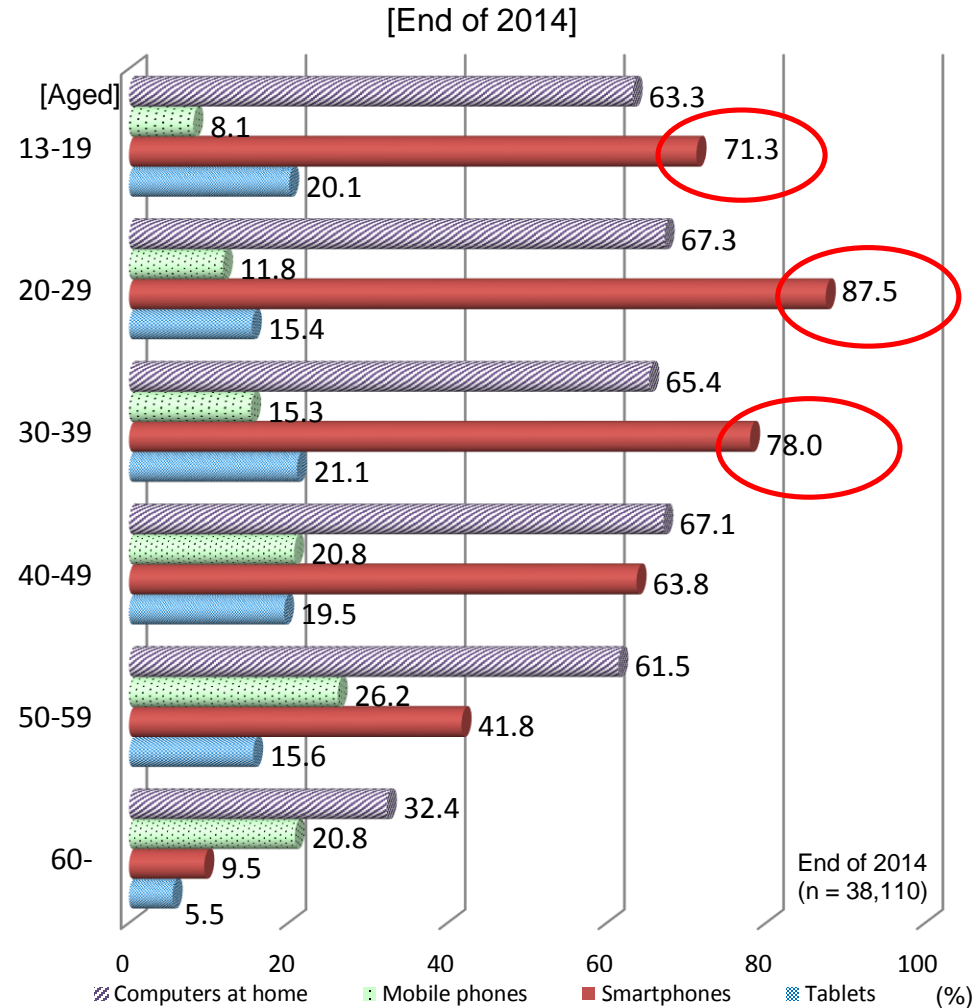
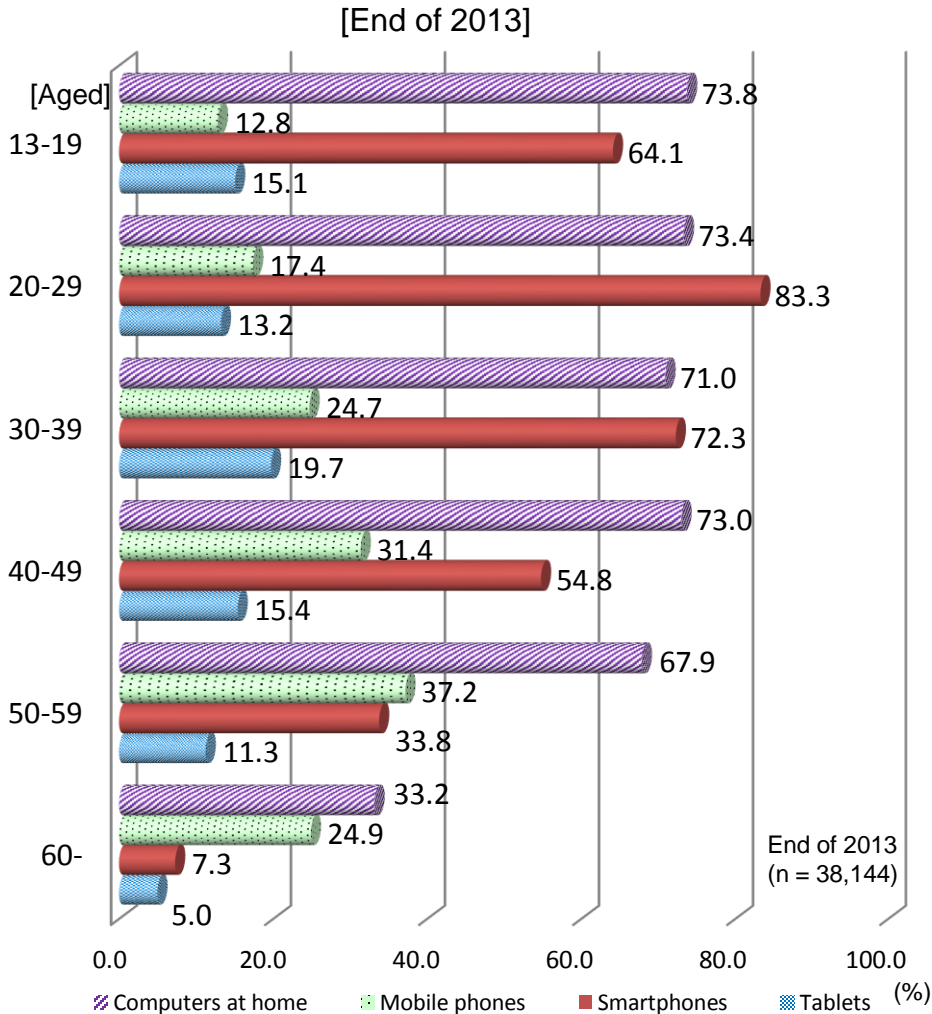


Note: Overall figures are for the 6 and older population. Figures do not include non-responses.

2. Internet Usage Trends (2)

Internet device usage by age group

Use of smartphones to access the Internet is markedly widespread in the age groups under 59. In the age groups under 39, smartphones use is the most common method to access the Internet.



Note: Figures for the end of 2013 were taken from the 2013 Communication Usage Trend Survey.

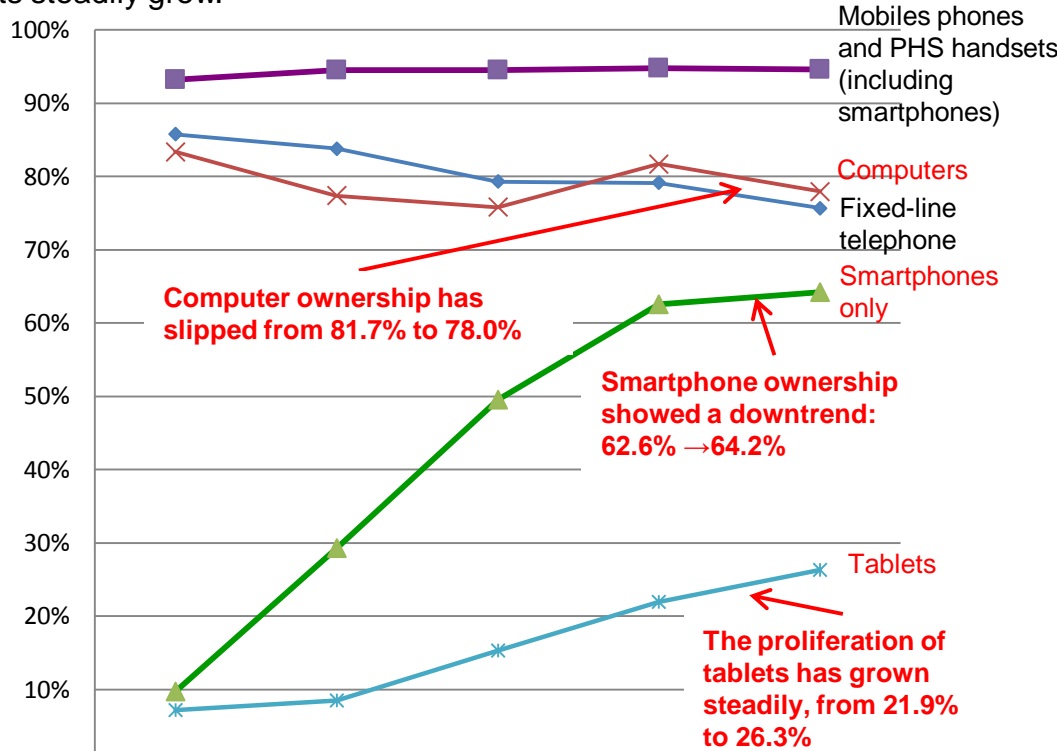
Note: Each figure is the Internet usage rate among surveyed household members (individuals) for the respective device and age group (non-responses excluded).

Note: Mobile phones exclude smartphones.

3. Proliferation of Common Communication Devices

Household ownership of common communication devices (2008 – 2014)

The growth in the use of smartphones slowed down, while the use of tablets steadily grew.



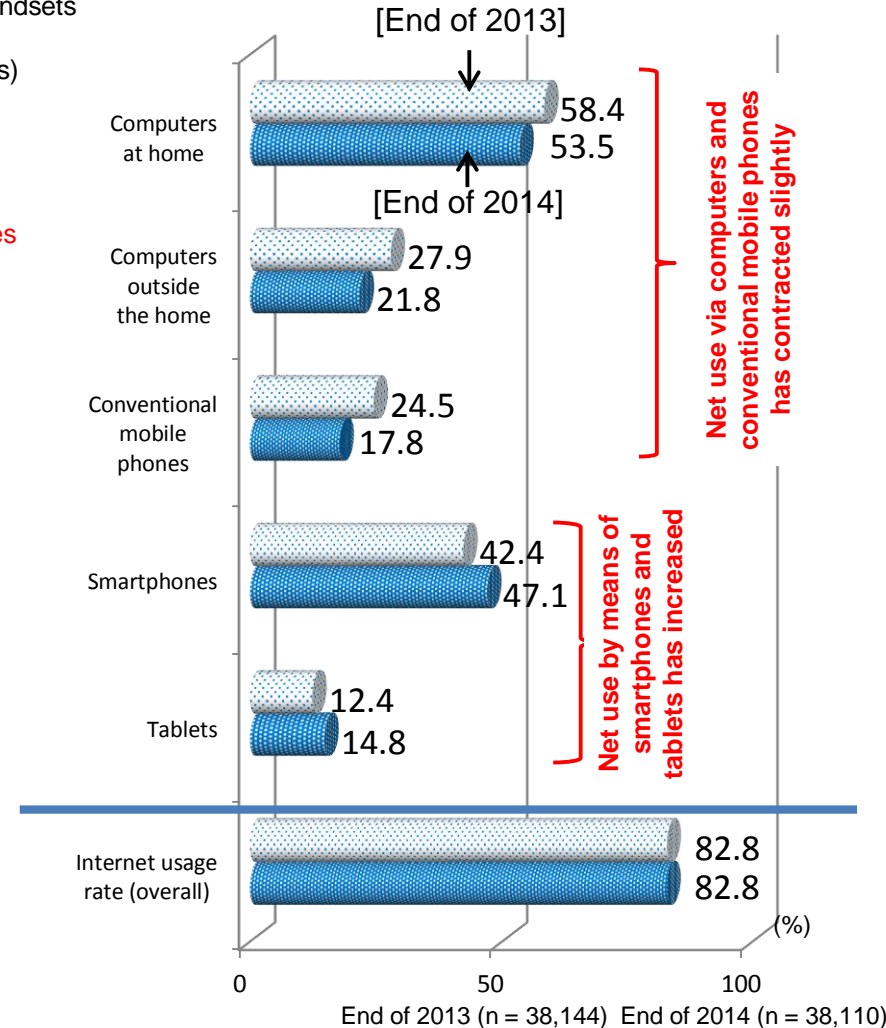
Computer ownership has slipped from 81.7% to 78.0%

Smartphone ownership showed a downtrend: 62.6% → 64.2%

The proliferation of tablets has grown steadily, from 21.9% to 26.3%

Internet usage by communication device

Internet use by means of smartphones and tablets has increased.



Net use via computers and conventional mobile phones has contracted slightly

Net use by means of smartphones and tablets has increased

Note: Each figure is the percentage of all households in each year's survey that own the respective communication 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 76.5% at the end of 2013 and 68.6% at the end of 2014.

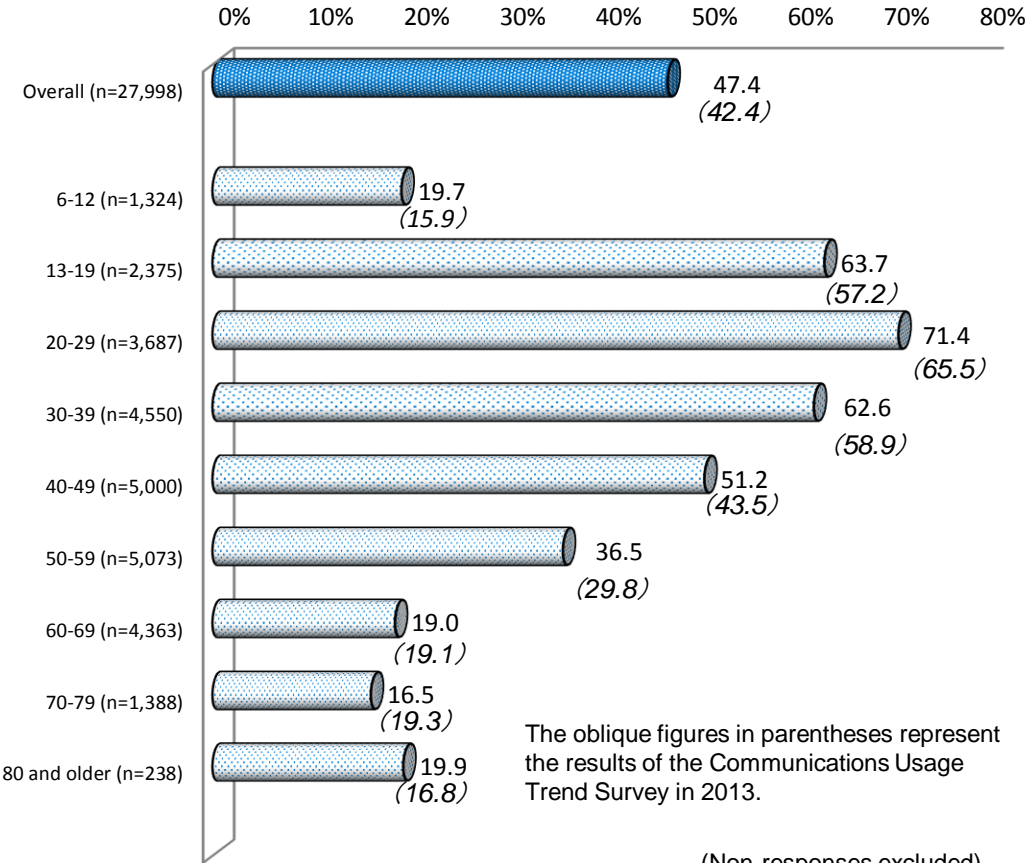
Note: Each figure is the percentage of all household members (individuals) in each year's survey who used the respective device in the previous year to access the Internet (multiple responses accepted, non-responses excluded).

4. Social Media Usage Trends

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

Social media usage by individuals

The usage rate for social media is higher than 60 percent in the age groups between 13 to 39 years old and higher than 50 percent in the 40 to 49 age group.



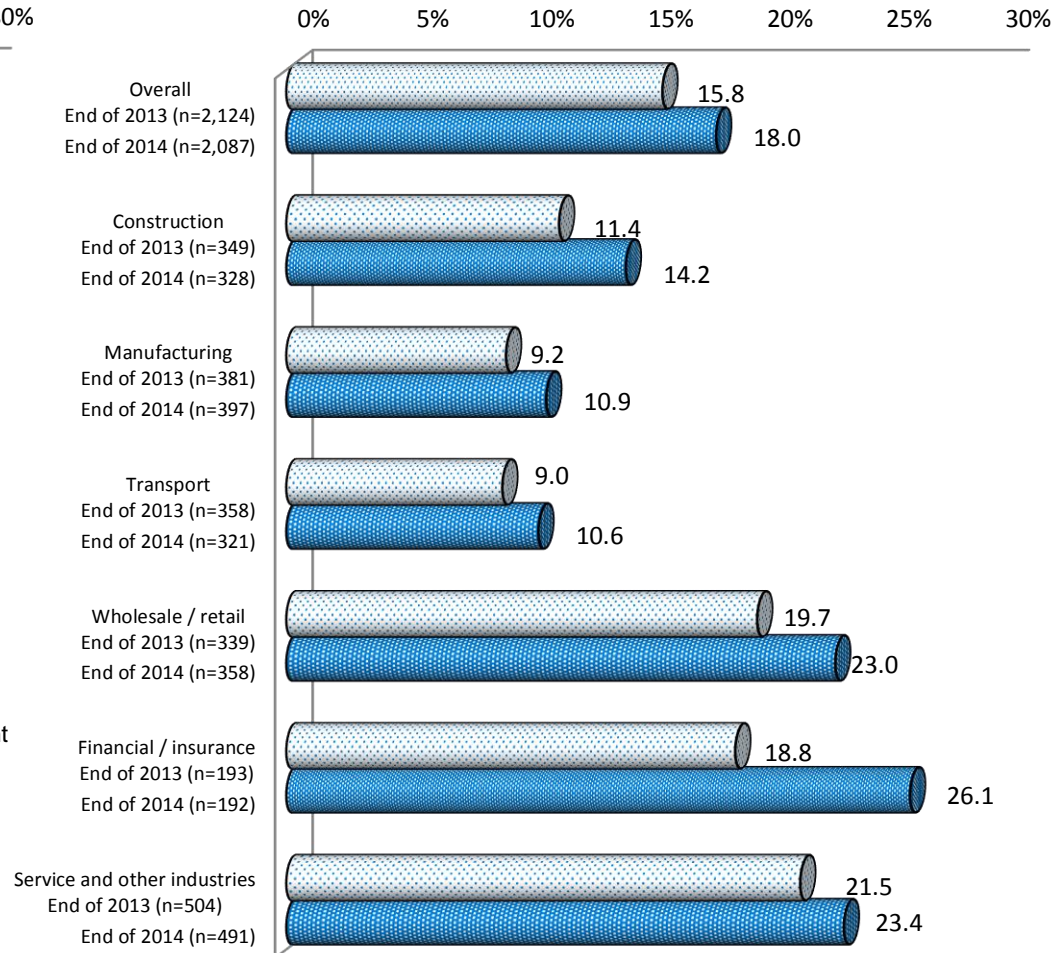
The oblique figures in parentheses represent the results of the Communications Usage Trend Survey in 2013.

(Non-responses excluded)

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

Social media use by businesses

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

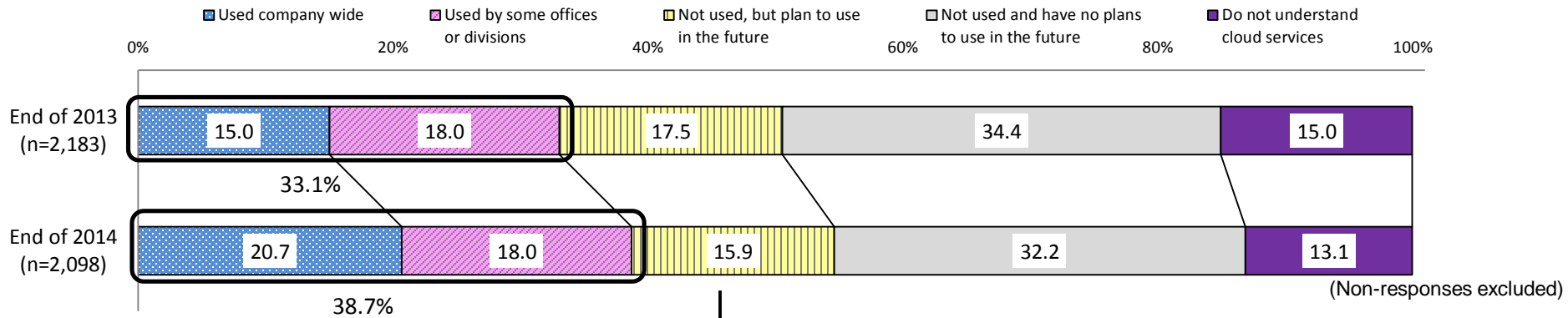


(Non-responses excluded)

5. Cloud Service Usage (businesses)

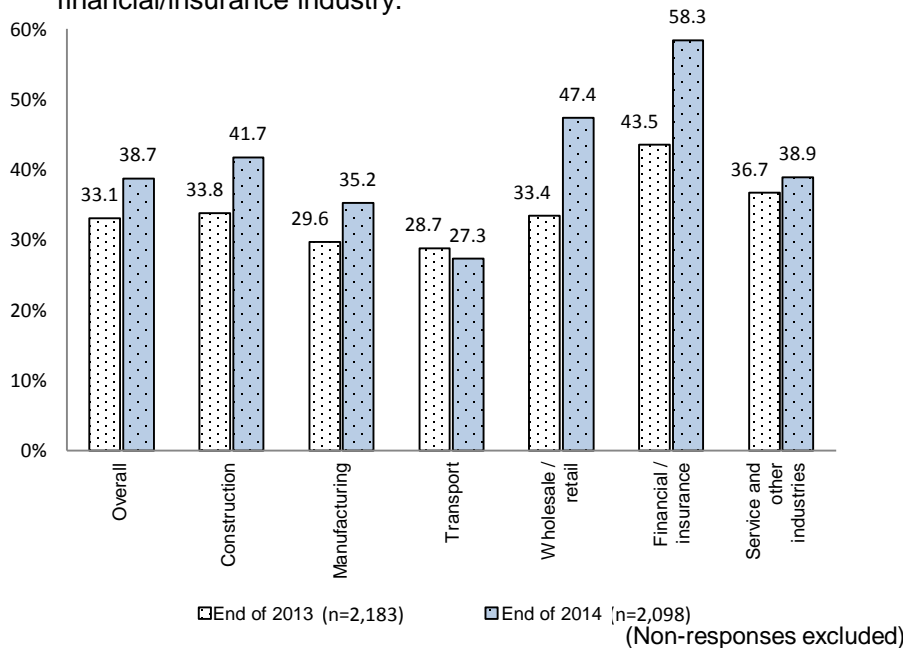
Cloud service usage

The percentage of businesses using cloud services rose from 33.1 percent to 38.7 percent.



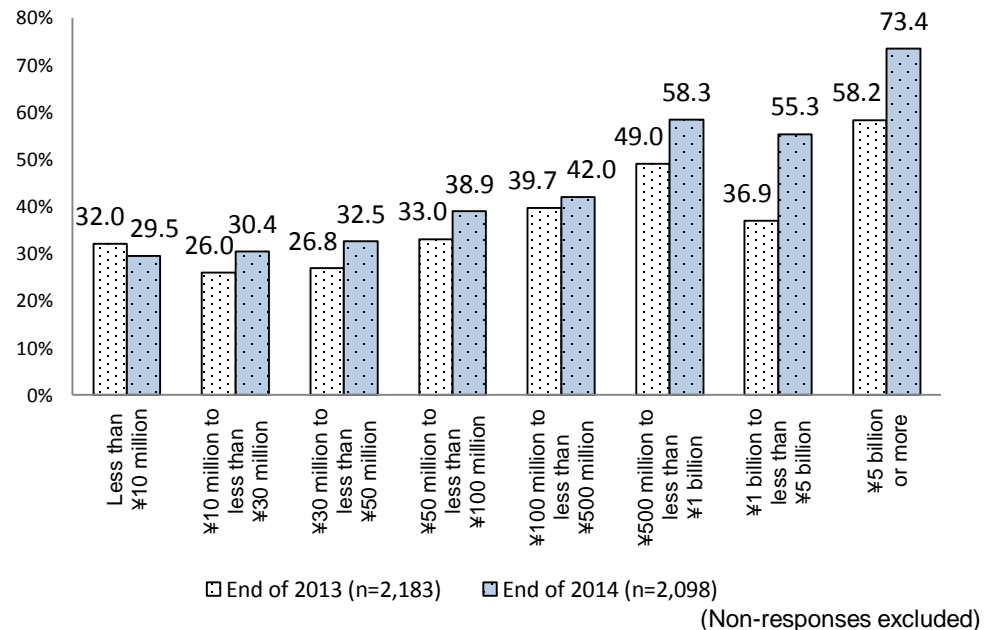
Cloud service usage by industry

By industry, nearly 60 percent used cloud services in the financial/insurance industry.



Cloud service usage by capitalization

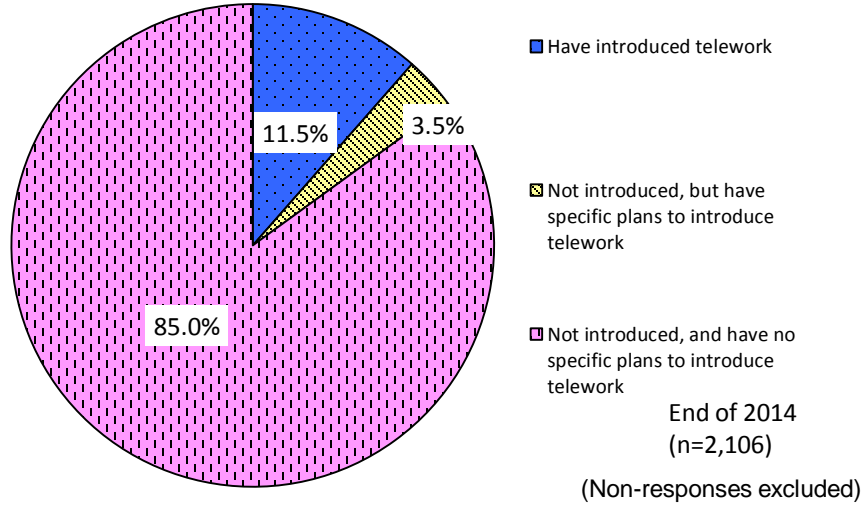
By capitalization size, more than half of businesses with 500 million yen or more in capital used cloud services.



6. Introduction of Telework (businesses) (1)

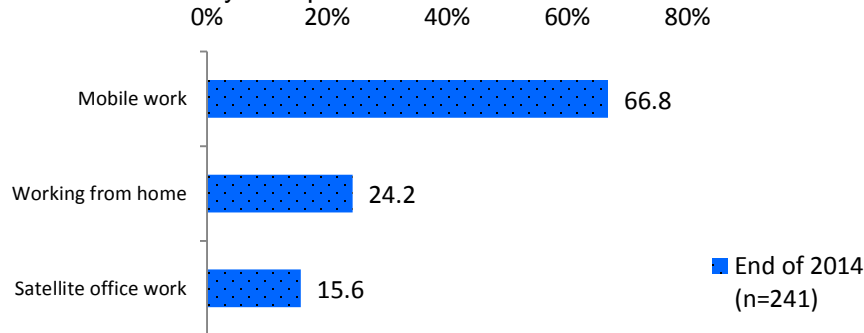
Introduction of Telework

Of the surveyed businesses, 11.5 percent have introduced telework.



Type of telework introduced (multiple responses accepted)

The most common type of telework introduced is mobile work, which was introduced by 66.8 percent.

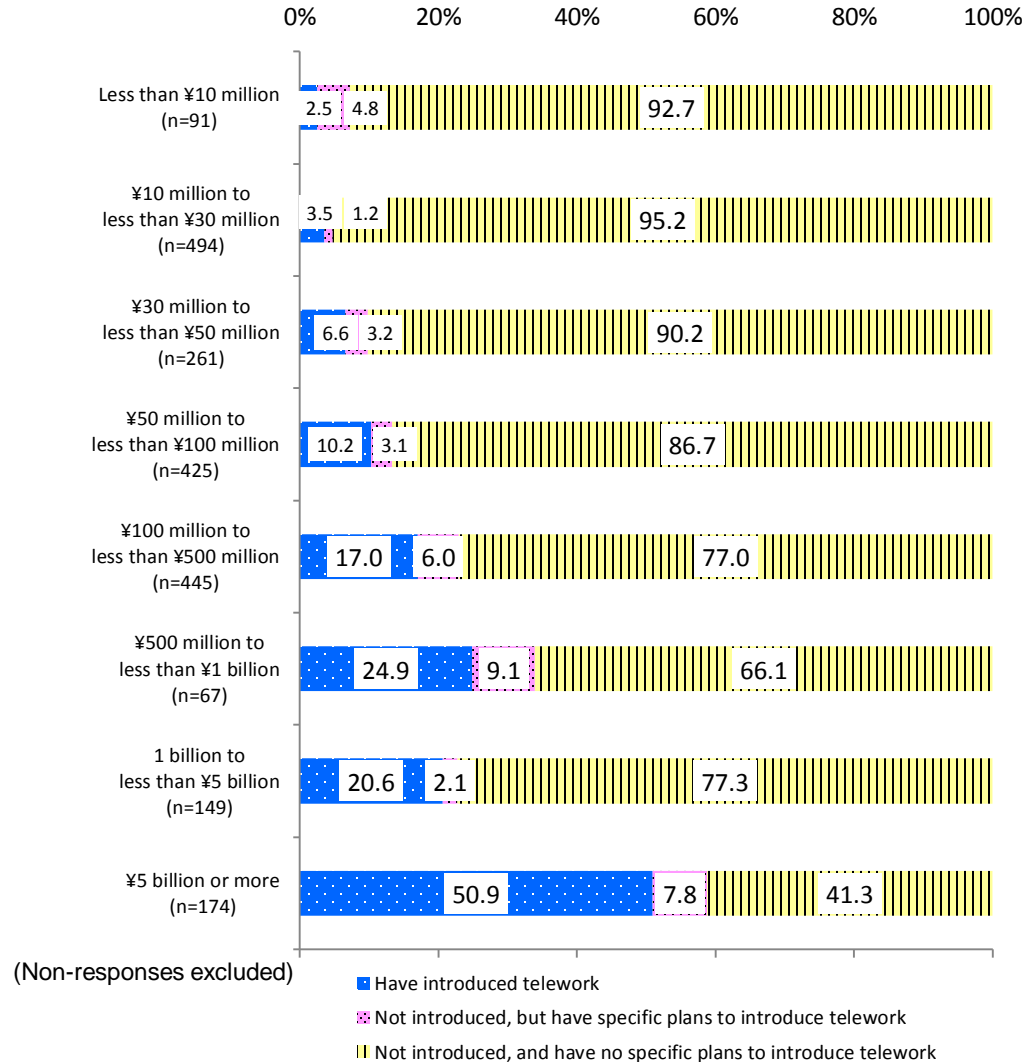


Note: "Mobile work" refers to working while out of office for the purpose of sales and other activities.

"Satellite office work" refers to working in offices and facilities located away from the primary location of work.

Telework introduction by capitalization

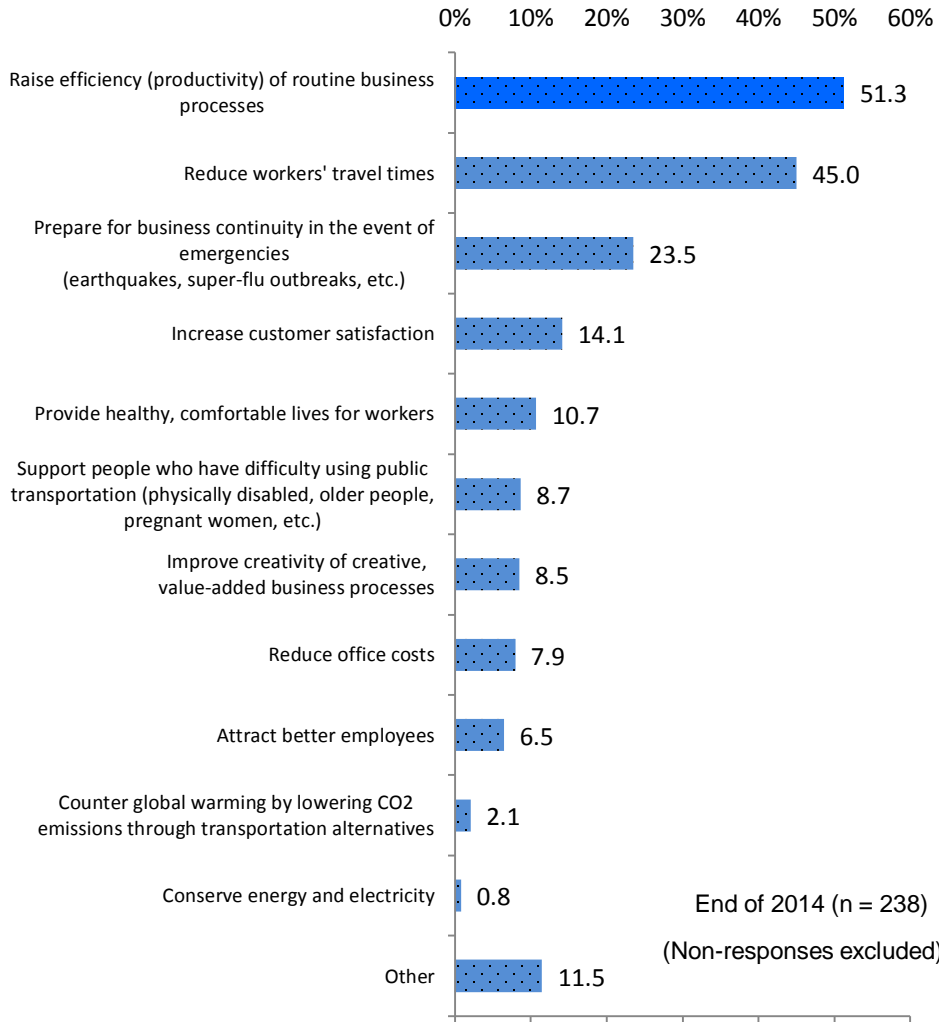
By capitalization size, more than half of businesses with 5 billion yen or more in capital have introduced telework.



7. Introduction of Telework (businesses) (2)

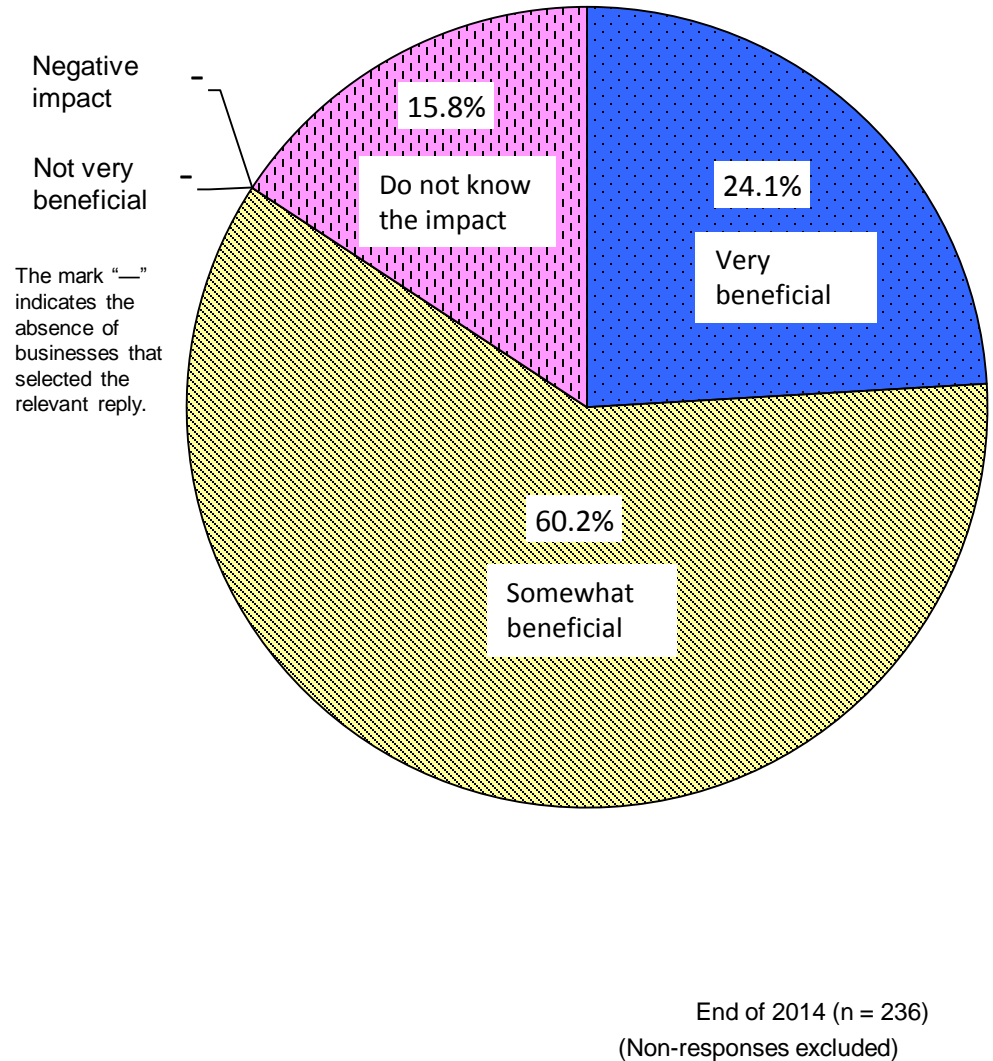
Purposes of introducing telework (multiple responses accepted)

The most common purpose of introducing telework is “raise efficiency (productivity) of routine business processes,” followed by “reduce workers’ travel times.”



Telework benefits

Regarding the effects of telework, 84.2 percent replied that telework was “very beneficial” or “somewhat beneficial.”



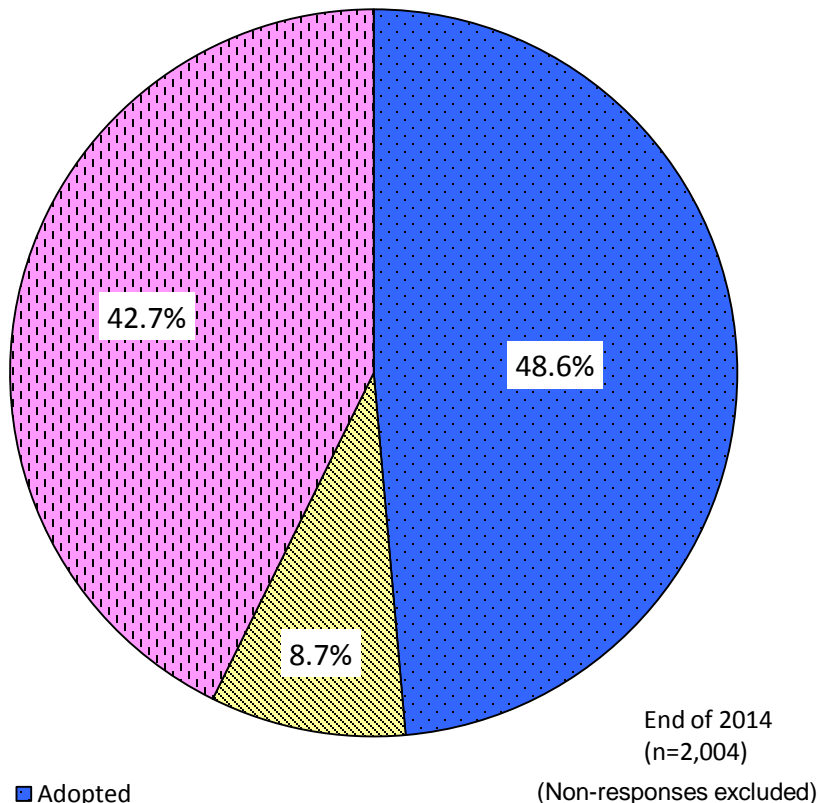
8. Use of ICT tools using wireless communication technology and collected information (businesses)

Adoption of ICT tools using wireless communication technology

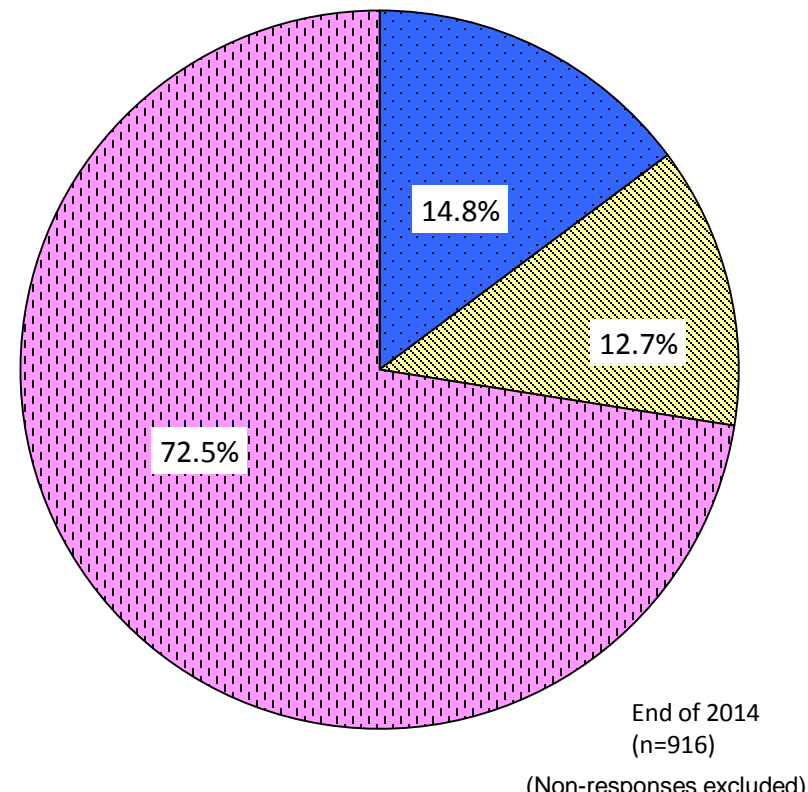
Of the surveyed businesses, 48.6 percent introduced ICT tools using wireless communication technology.

Use of collected information

The percentage of businesses using information collected through ICT tools using wireless communication technology was 14.8 percent.



- Adopted
- Not adopted, but have adoption plans
- Not adopted, and have no adoption plans



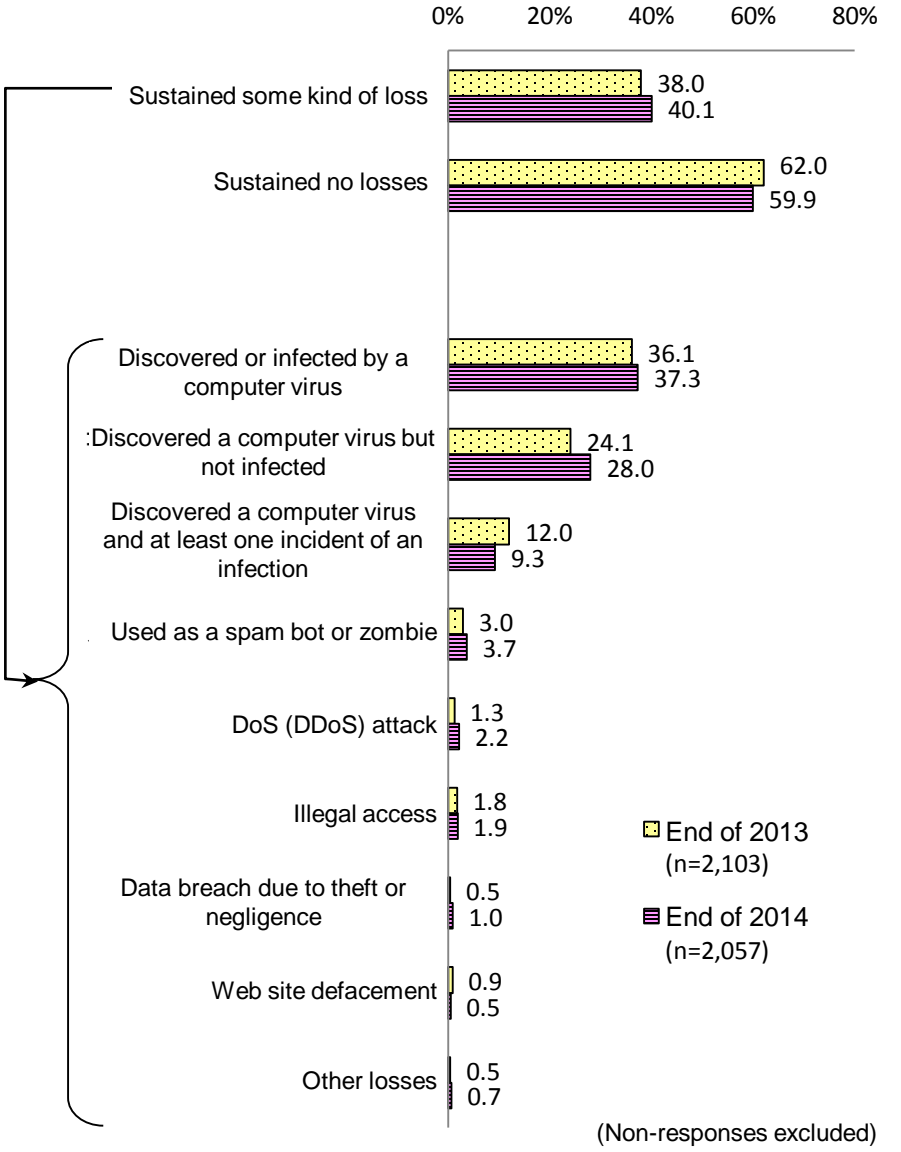
- Using
- Not using but planning to use
- Neither using nor planning to use

*The ICT tools as referred to in this survey are RFID tags, contactless IC cards, new network-enabled devices, and GPS, mobile phone, or other location devices

9. Security Breaches on Company Communication Networks (businesses)

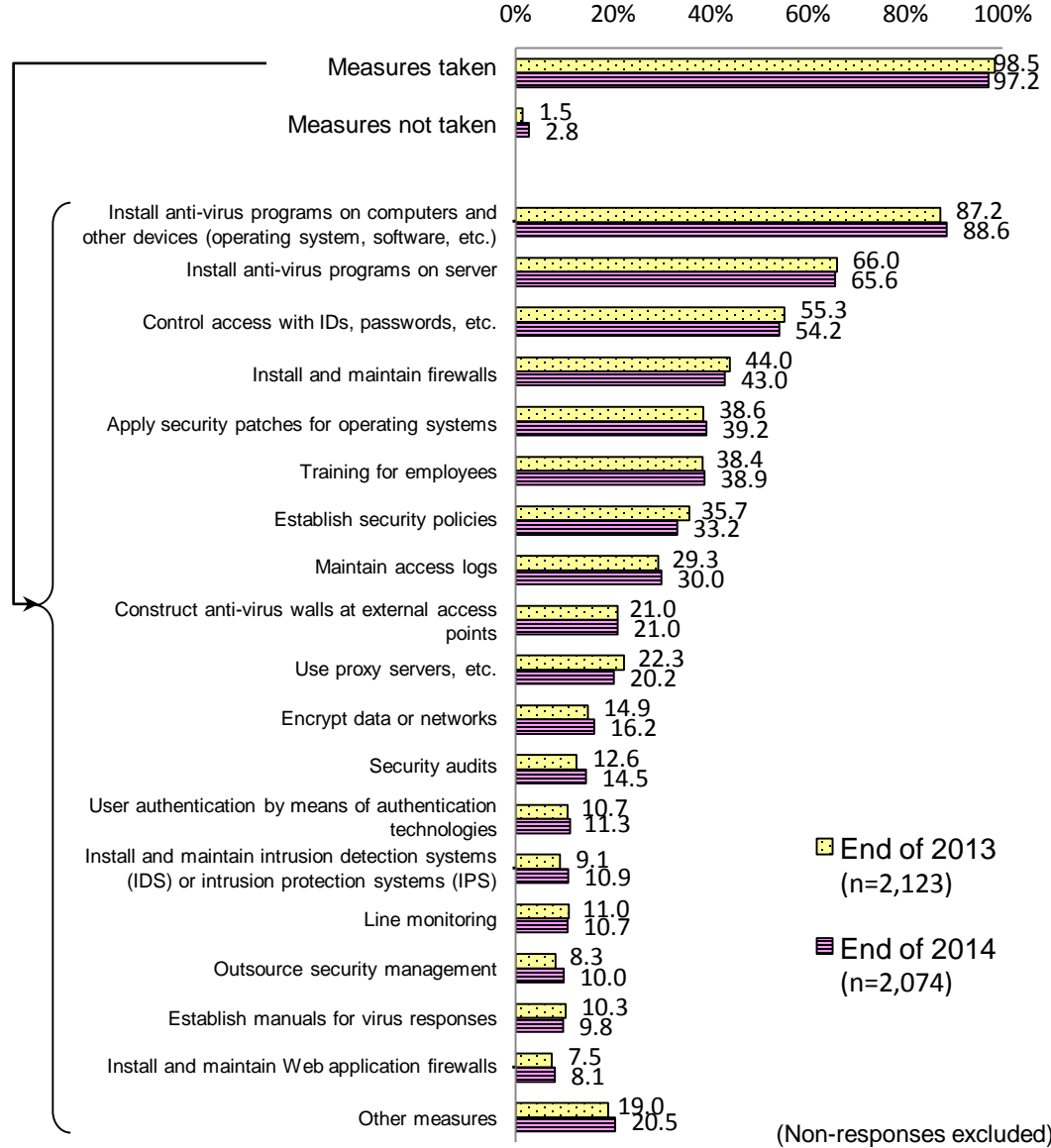
Information security losses sustained by businesses

Of the surveyed businesses, around 40 percent reported some types of losses regarding information security.



Information security measures taken by businesses

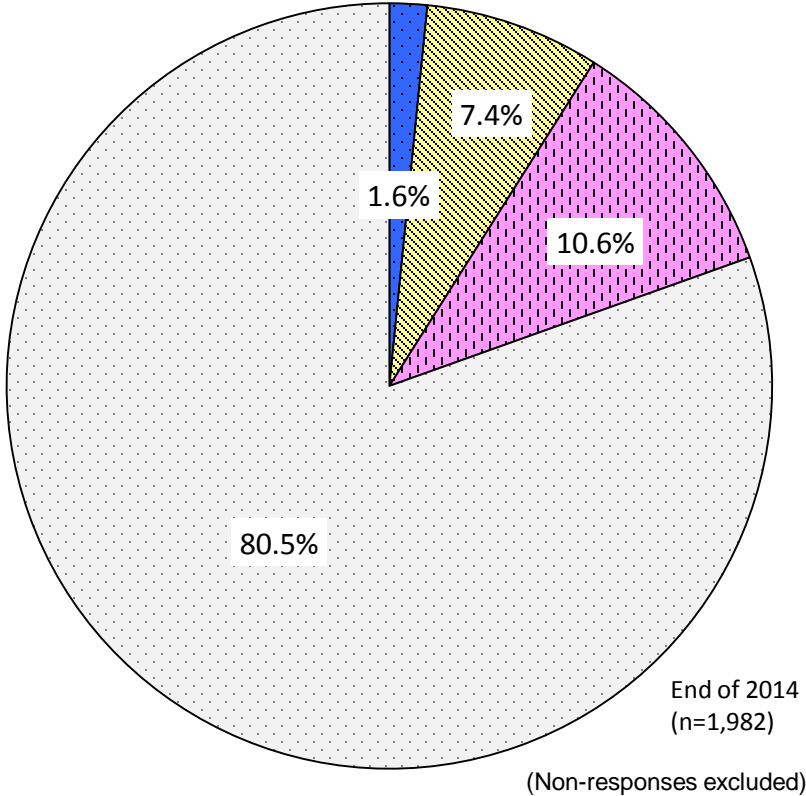
The percentage of businesses that have implemented some security measures remained high, over 97 percent, in the surveys in 2013 and 2014.



10. Targeted Emails (businesses)

Targeted email losses

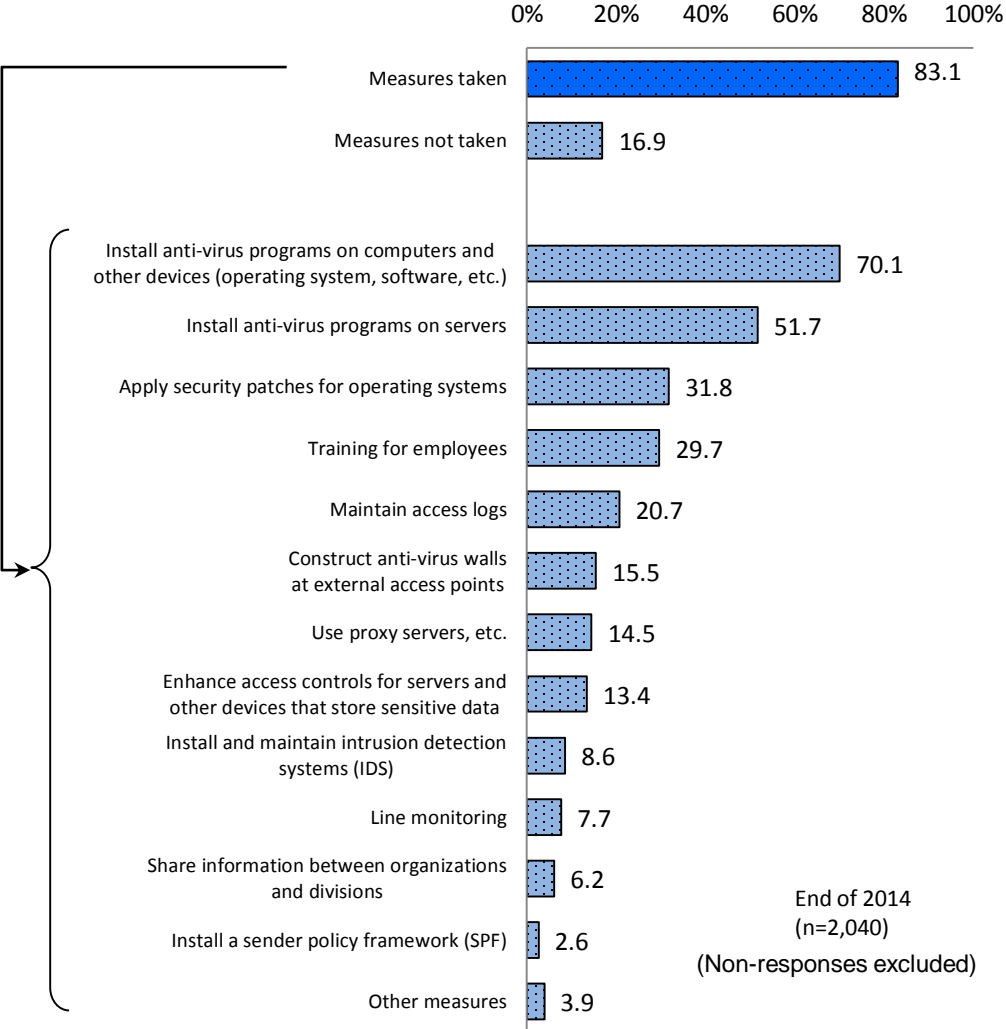
19.5 percent of businesses reported they had sustained losses from targeted email. Of these, 1.6 percent reported at least one instance of computer virus infection.



- Targeted emails reached an employee's device and there was at least one instance of a computer virus infection
- Targeted emails reached an employee's device, but there were no computer virus infections
- Anti-virus programs and other measures blocked all targeted emails before reaching any device
- Have seen no traces of targeted emails

Targeted email security measures

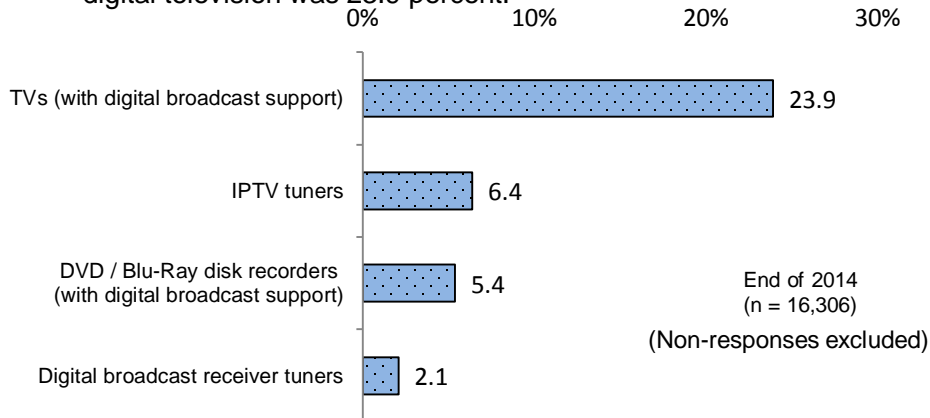
83.1 percent of businesses have taken some security measures against targeted email. The most common security measure implemented is installing anti-virus program on computers and other devices.



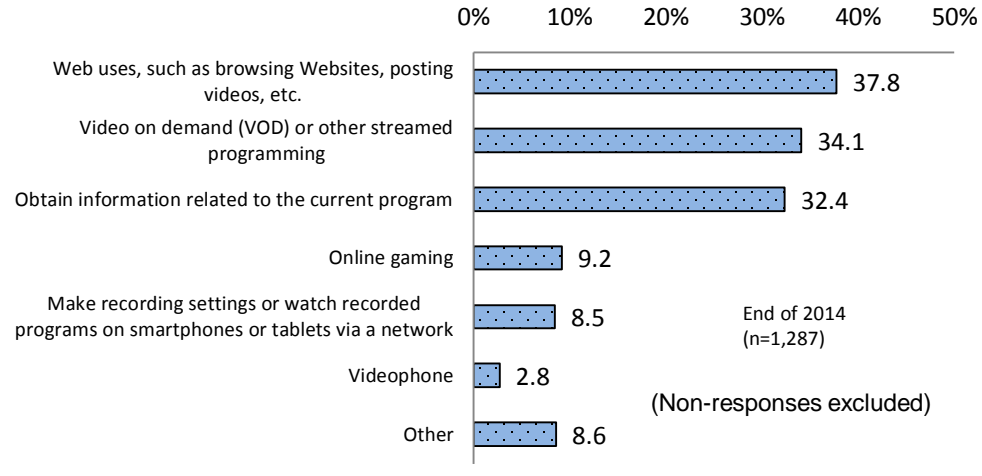
11. Internet connection of digital television, etc.

Internet connection of digital TV and other broadcast receivers (households)

The percentage of households with Internet-connected digital television was 23.9 percent.

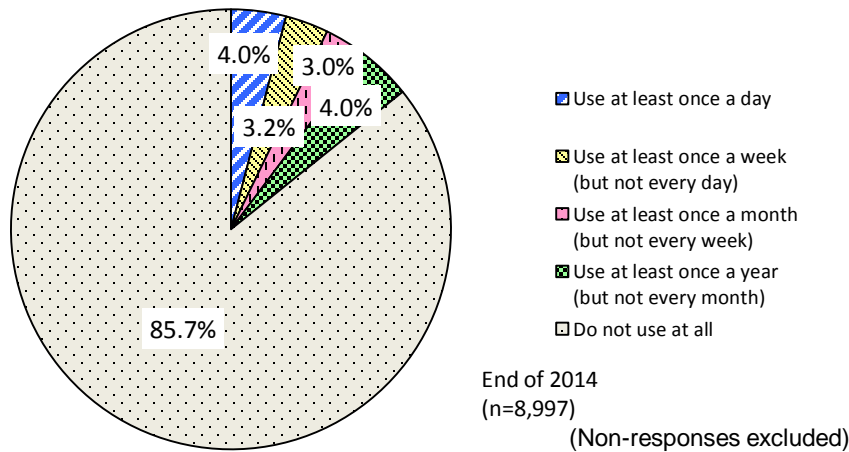


Purposes of Internet access function usage of digital television, etc. (households)



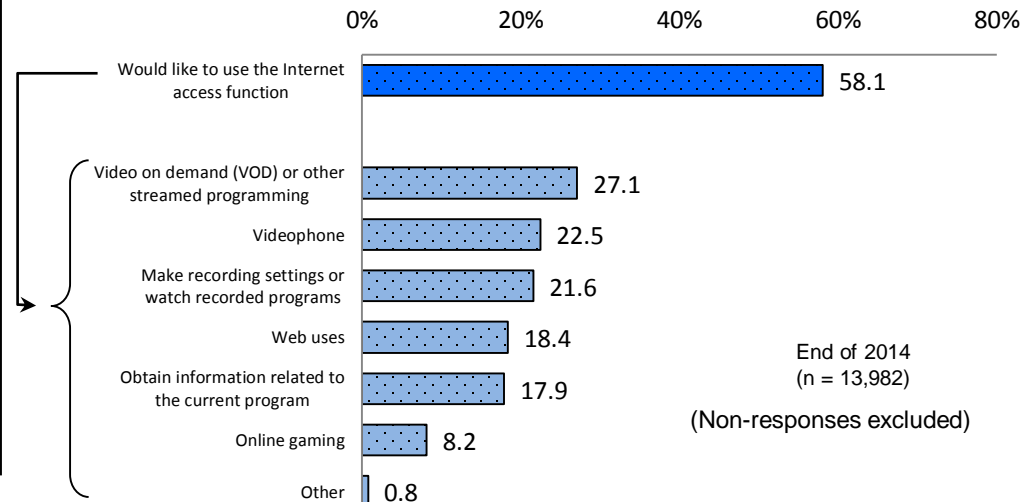
Internet access function usage of digital television, etc. (households)

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



Intention of Internet access function usage of digital television, etc. (households)

Nearly 60 percent 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 2014 Communications Usage Trend Survey

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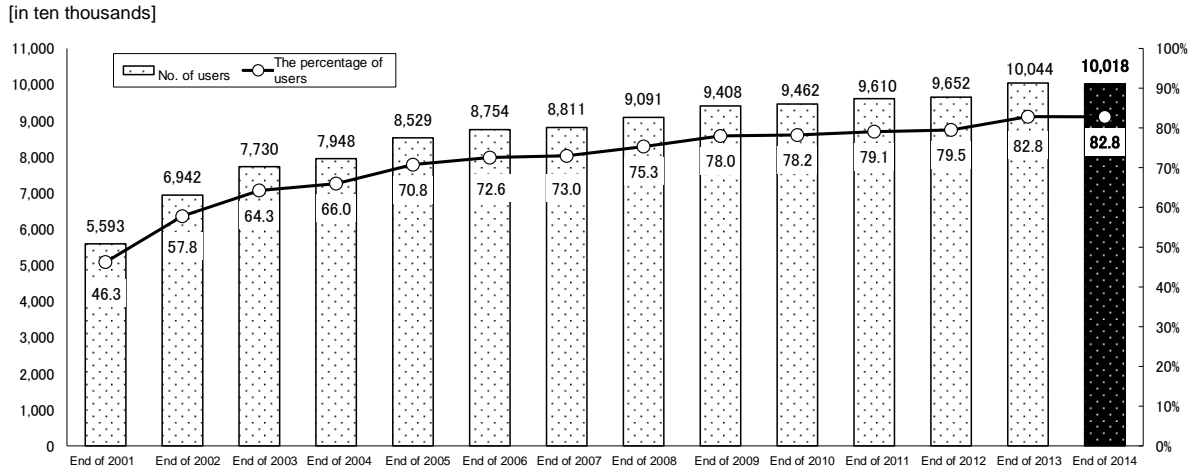
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1. Proliferation of the Internet and Other Networks

(1) Transitions in the number of Internet users (individuals)

The number of people who used the Internet over the course of 2014 (Internet users; estimate) was 100.18 million, while the Internet usage rate among individuals was 82.8 percent, unchanged from the previous year.

Figure 1-1: Transitions in the number of Internet users and Internet usage rates (individuals)



Notes: 1. The survey questioned persons aged six and older.

- 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.
- 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.
- Calculations excluded non-responses. (This holds for all findings in this document.)

(2) Internet usage (individuals)

By gender, the Internet usage rate was 86.3 percent among men and 79.4 percent among women, and both figures were almost unchanged from the previous year.

By age group, the Internet usage rate was higher than 90 percent in the age groups between 13 and 59 years old.

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

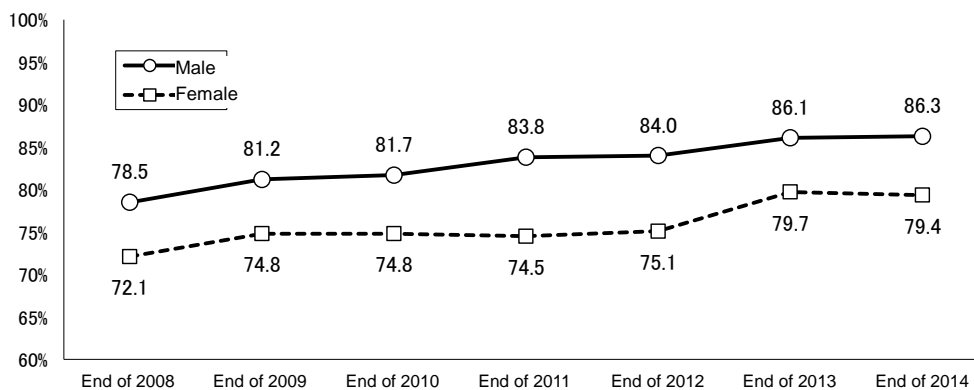


Figure 1-3: Transitions in Internet usage by age group (individuals)

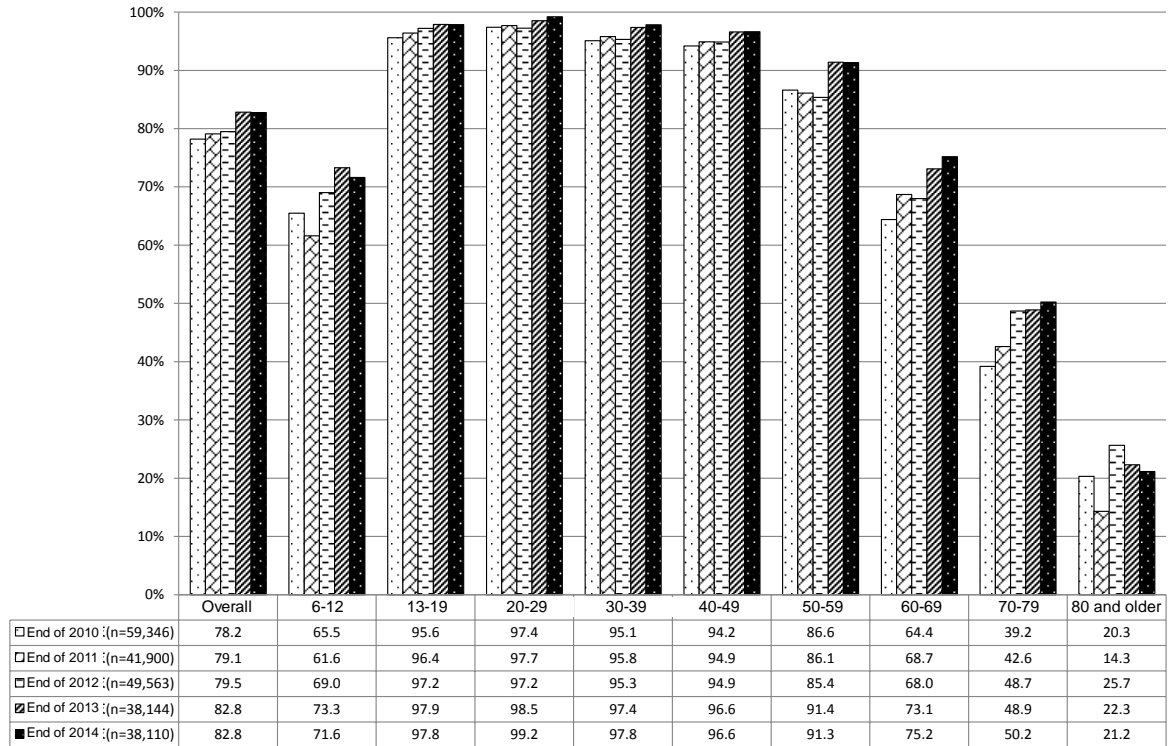
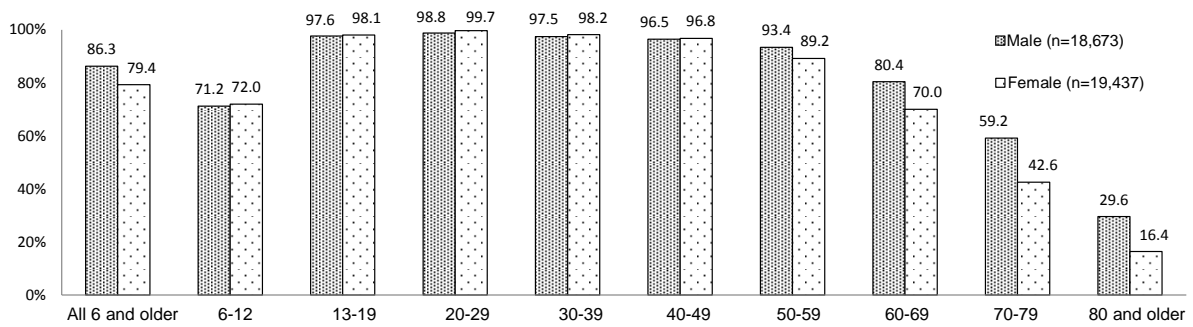


Figure 1-4: Internet usage by age and gender — end of 2014 (individuals)



(3) Internet usage by device (individuals)

The most common device used to access the Internet during 2014 was “computers at home,” at 53.5 percent, followed by “smartphones” (47.1 percent) and “computers outside the home” (21.8 percent).

By age group, more than 70 percent used “smartphones” in the age groups between 13 and 39 years old, and this was higher than the usage rate for “computers at home.”

Figure 1-5: Internet usage by device (individuals)

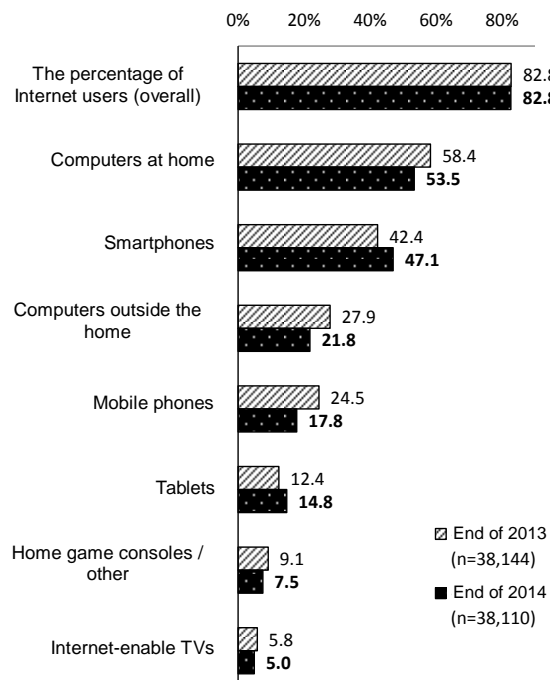


Figure 1-6: Use of Internet devices by age group — end of 2014 (individuals)

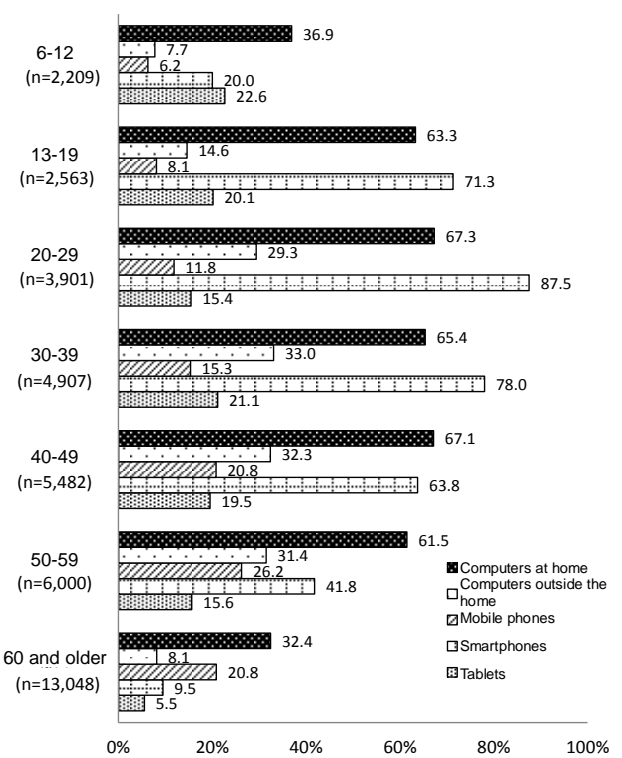
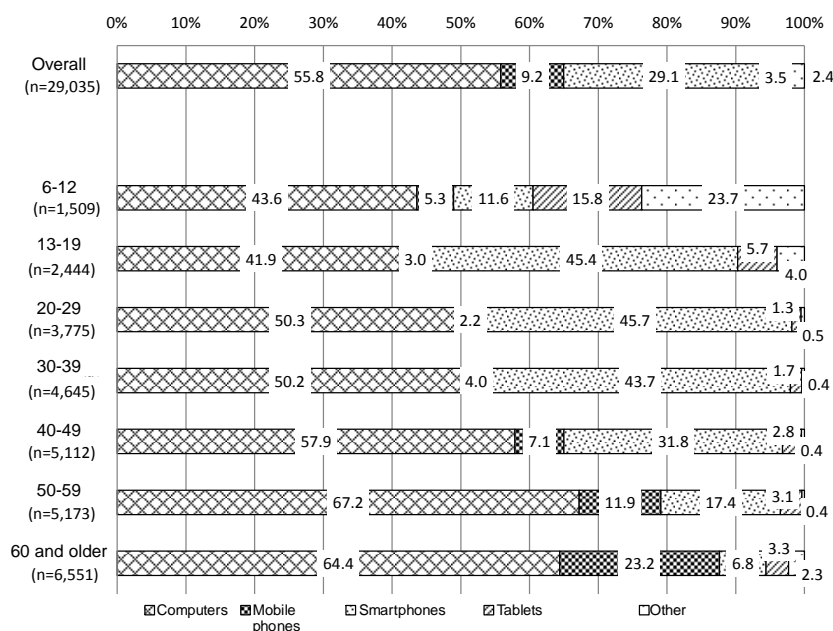


Figure 1-7: Primary Internet devices used by age group — end of 2014 (individuals)



Note: as a percentage of Internet users

(4) Internet usage by prefecture (individuals)

Examining Internet usage rates by prefecture found that the usage rates were higher in prefectures with large urban areas. Twelve prefectures had above-average usage rates: Saitama, Chiba, Tokyo, Kanagawa, Ishikawa, Mie, Shiga, Kyoto, Osaka, Hyogo, Nara and Fukuoka.

Figure 1-8: Internet usage by prefecture and device — end of 2014 (individuals)

Prefecture (n)	Percentage of Internet users (%)				
	Total	Computers at home	Computers outside the home	Mobile phones	Smartphones
Hokkaido (668)	82.4	46.7	19.0	19.5	42.0
Aomori (732)	74.4	43.9	18.8	18.1	37.1
Iwate (950)	73.1	38.4	19.1	15.9	39.1
Miyagi (744)	80.2	47.4	19.7	22.4	40.5
Akita (797)	74.4	44.8	18.7	17.5	39.3
Yamagata (1,076)	74.2	43.7	16.7	13.9	40.2
Fukushima (900)	80.8	47.0	17.7	19.2	39.5
Ibaraki (726)	80.5	46.5	22.5	18.3	44.9
Tochigi (914)	78.4	49.5	18.9	16.2	42.0
Gunma (770)	81.8	47.9	23.8	17.1	45.7
Saitama (750)	85.7	55.7	21.4	18.7	52.1
Chiba (802)	84.7	55.8	22.6	19.3	47.0
Tokyo (777)	88.9	63.0	30.8	21.0	55.3
Kanagawa (556)	88.1	61.6	27.0	20.3	54.9
Niigata (1,076)	72.6	42.1	15.1	16.3	38.9
Toyama (1,164)	81.7	53.8	20.5	16.7	43.3
Ishikawa (941)	83.5	53.8	21.7	18.0	42.9
Fukui (957)	78.5	49.3	20.7	13.3	44.8
Yamanashi (859)	78.9	52.4	21.7	16.5	45.8
Nagano (870)	77.0	54.4	20.3	17.1	40.2
Gifu (1,000)	80.0	53.5	19.1	16.1	44.2
Shizuoka (857)	82.0	58.8	19.8	16.2	43.2
Aichi (773)	81.6	56.2	20.7	15.7	46.7
Mie (879)	83.8	55.9	20.5	19.2	46.0
Shiga (983)	84.6	57.0	19.9	17.0	51.3
Kyoto (755)	85.5	57.3	23.1	15.7	50.7
Osaka (838)	86.2	56.5	20.4	16.5	52.8
Hyogo (969)	85.2	56.8	19.1	15.4	47.8
Nara (881)	83.4	59.7	18.7	17.0	45.4
Wakayama (682)	78.1	46.1	18.3	16.2	41.2
Tottori (884)	75.7	44.7	17.3	16.6	37.1
Shimane (985)	75.6	45.3	20.7	15.3	38.7
Okayama (888)	81.5	49.6	22.2	16.5	45.5
Hiroshima (695)	82.5	54.8	22.4	17.5	46.7
Yamaguchi (803)	75.7	43.9	18.5	15.8	39.9
Tokushima (755)	78.9	50.9	18.4	15.7	43.8
Kagawa (761)	81.5	52.9	21.6	17.0	43.3
Ehime (822)	75.1	44.5	14.3	14.0	40.3
Kochi (641)	75.1	43.2	19.1	14.8	41.6
Fukuoka (715)	82.8	49.0	22.4	19.6	43.7
Saga (816)	79.3	42.1	18.3	13.4	49.1
Nagasaki (697)	77.7	42.8	17.5	17.6	41.6
Kumamoto (698)	78.8	46.4	14.9	14.2	42.4
Oita (618)	80.3	45.2	20.0	16.2	45.6
Miyazaki (628)	76.6	43.0	17.5	16.3	40.1
Kagoshima (601)	73.6	42.7	17.1	15.2	40.5
Okinawa (457)	76.6	38.0	19.1	16.8	40.3
Total (38,110)	82.8	53.5	21.8	17.8	47.1

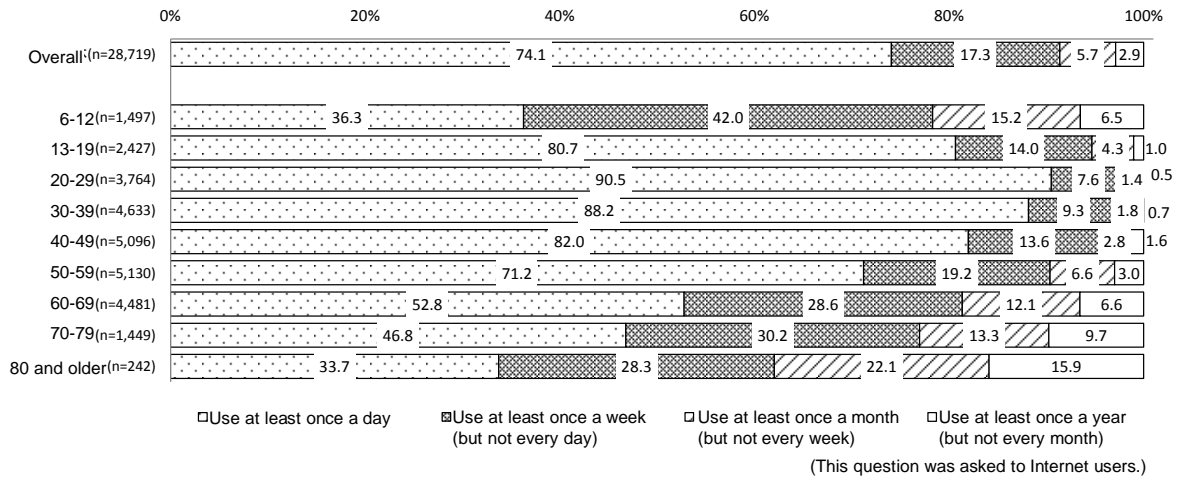
Note: Figures for mobile phones include PHS handsets and PDAs.

(5) Frequency of Internet use (individuals)

Examining the frequency of Internet use found that 70 percent or more users use the Internet at least once a day.

By age group, 80 percent or more of each age bracket between 13 and 49 use the Internet at least once a day.

Figure 1-9: Frequency of Internet use by age group — end of 2014 (individuals)

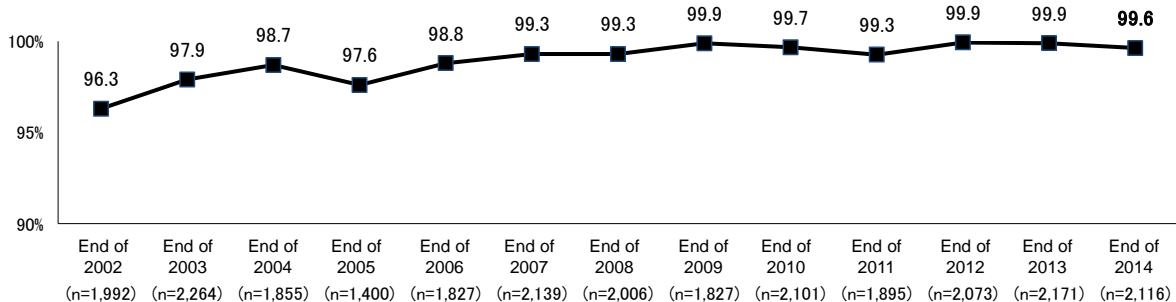


(6) Internet usage (businesses)

The rate of Internet usage among businesses was 99.6 percent.

The usage rate has leveled off at the 99 percent bracket since the end of 2007, indicating that Internet use by businesses has reached full penetration.

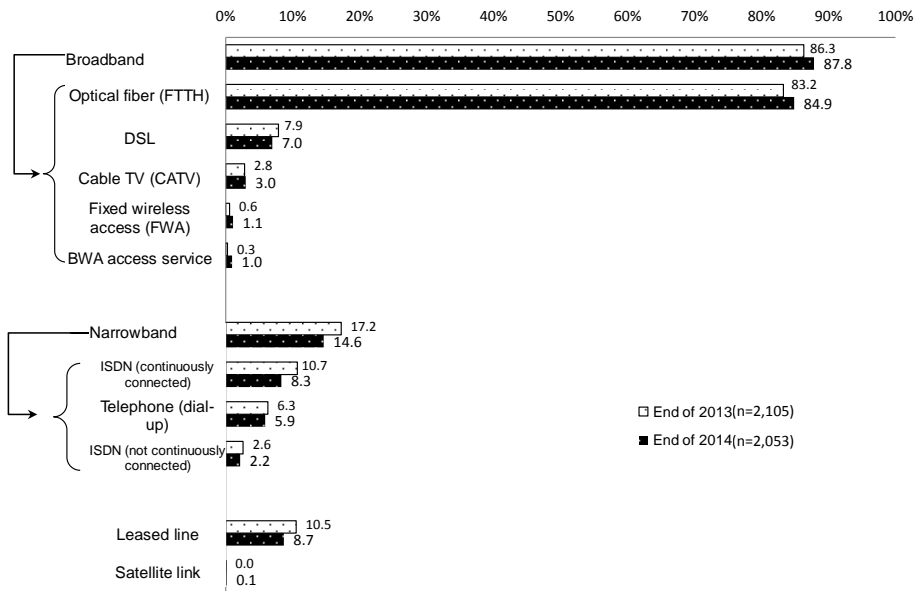
Figure 1-10: Transitions in Internet usage (businesses)



(7) Types of Internet connections (businesses)

87.8 percent of businesses, a 1.5 percentage point increase from the previous year (86.3%), used a broadband connection to access the Internet from their premises. Those using optical fiber connections rose 1.7 percent to 84.9 percent, indicating that the move to broadband by businesses via optical fiber connections was progressing steadily.

**Figure 1-11: Internet connection types (businesses)
(multiple responses accepted)**

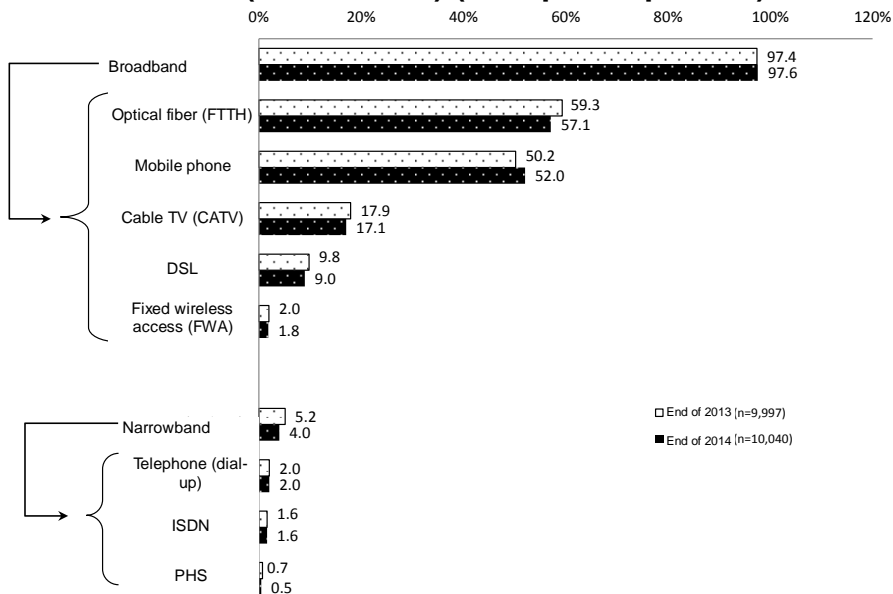


Note: as a percentage of businesses using the Internet

(8) Types of Internet connections (households)

Of households using a broadband connection to access the Internet from computers at home, tablets, and other devices, 97.6 percent used a broadband connection, almost flat compared with 97.4 percent in the previous year. Of households using a broadband connection, 57.1 percent used an optical fiber connection and 52.0 percent used a mobile phone connection.

Figure 1-12: Types of Internet connections for computers at home and other devices (households) (multiple responses)



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

(10) Ownership of common communication devices (individuals)

Regarding ownership of communication devices by individuals, “computers” were owned by the largest percentage, 52.7 percent, followed by “smartphones” (44.7 percent) and “mobile phones / PHS handsets” (34.6 percent). While the ownership rate for “computers” declined 3.9 points, the rate for “smartphones” rose 5.6 points. By age group, the ownership rate for “smartphones” was higher than the ownership rate for “mobile phones” in the age groups between 6 and 49 years old. In the age groups between 13 and 39 years old, the ownership rate for “smartphones” was higher than the rate for “computers at home.”

Figure 1-14: Ownership of common communication devices (individuals)

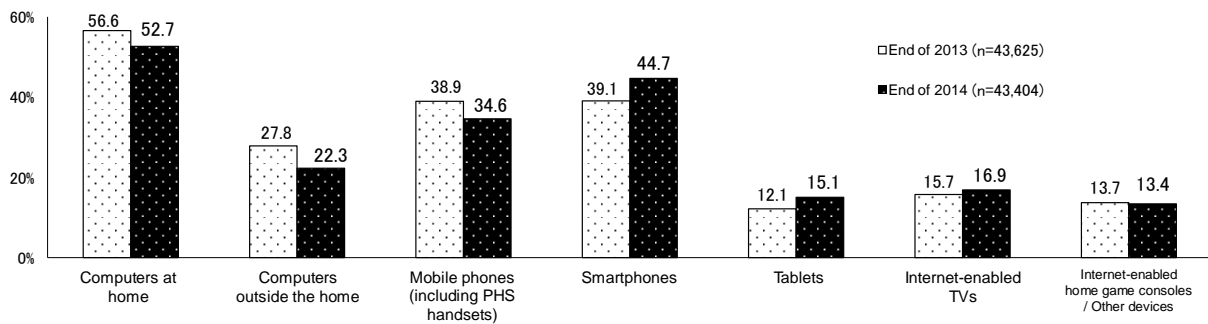
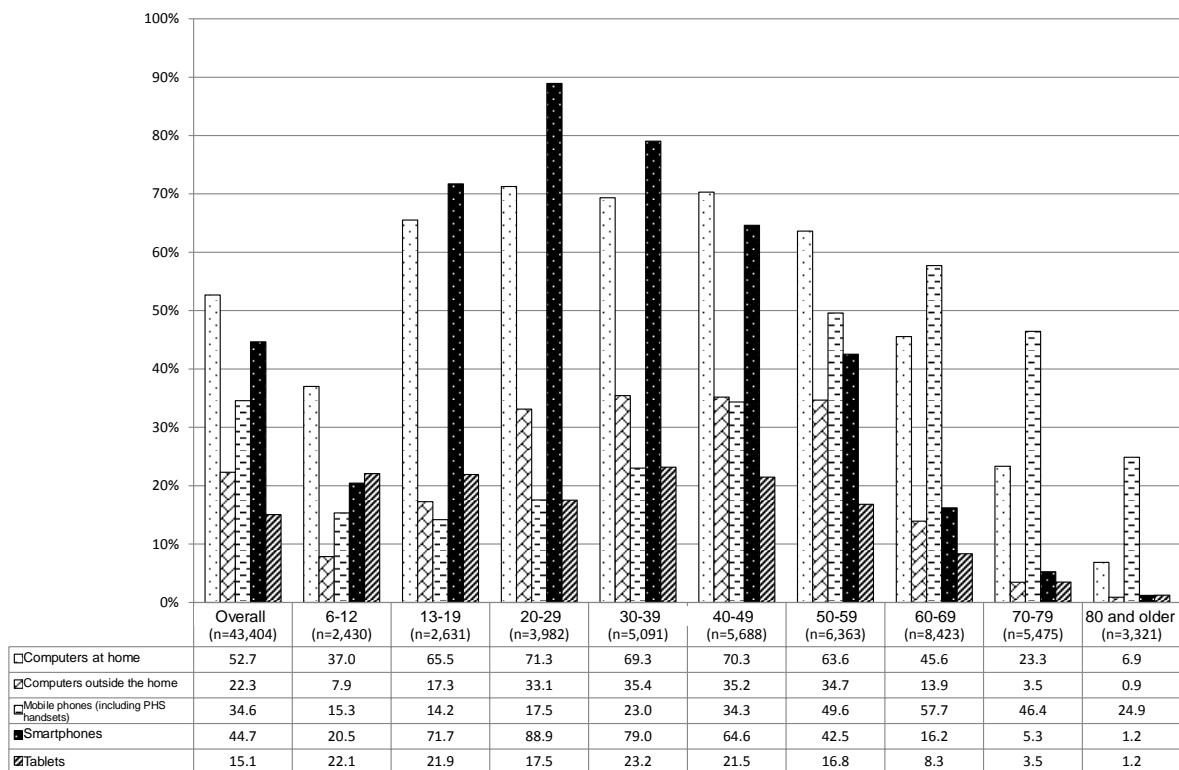


Figure 1-15: Ownership of common communication devices by age group — end of 2014 (individuals)



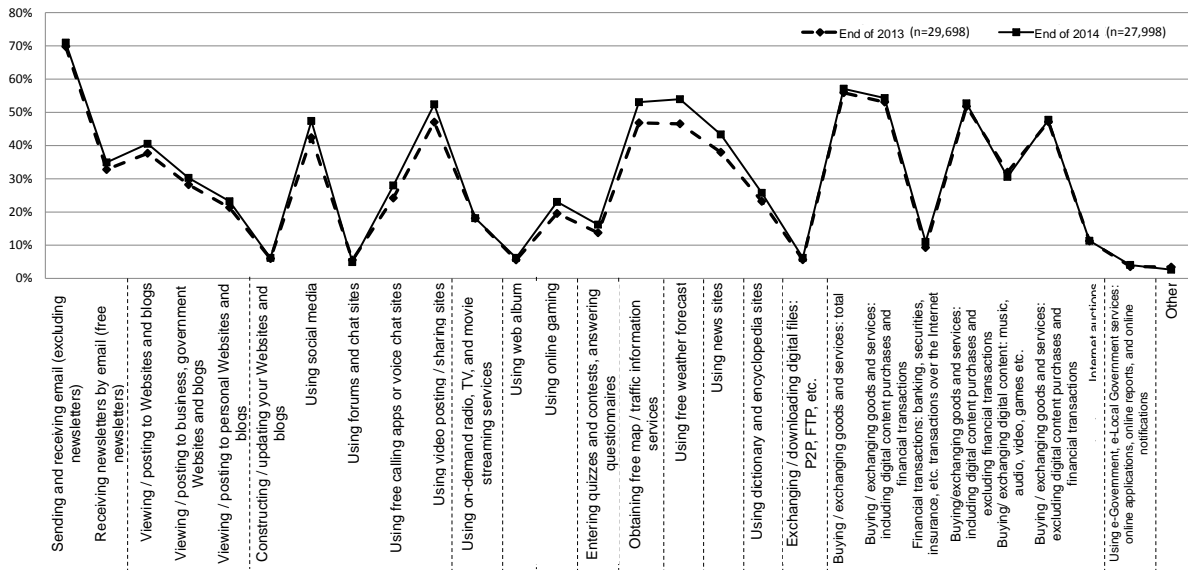
2. Current ICT Usage by Individuals

(1) Purposes of using the Internet

The most common use of the Internet was “sending and receiving email,” at 71.0 percent. This was followed by “buying / exchanging goods and services” (54.3 percent) and “using free weather forecast” (53.9 percent).

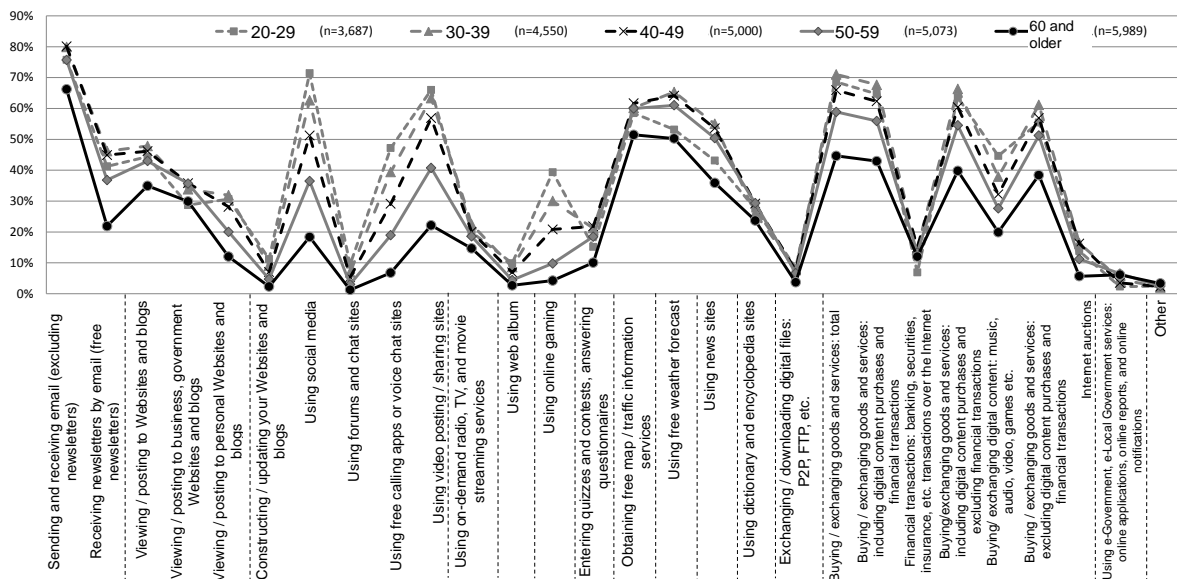
By age group, more than half of the 20 to 59 cohort used the Internet for “sending and receiving email,” “obtaining free map / traffic information services,” “using free weather forecast” and “buying / exchanging goods and services.”

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



Note: as a percentage of Internet users

Figure 2-2: Purposes of using the Internet by age group — end of 2014 (multiple responses accepted)



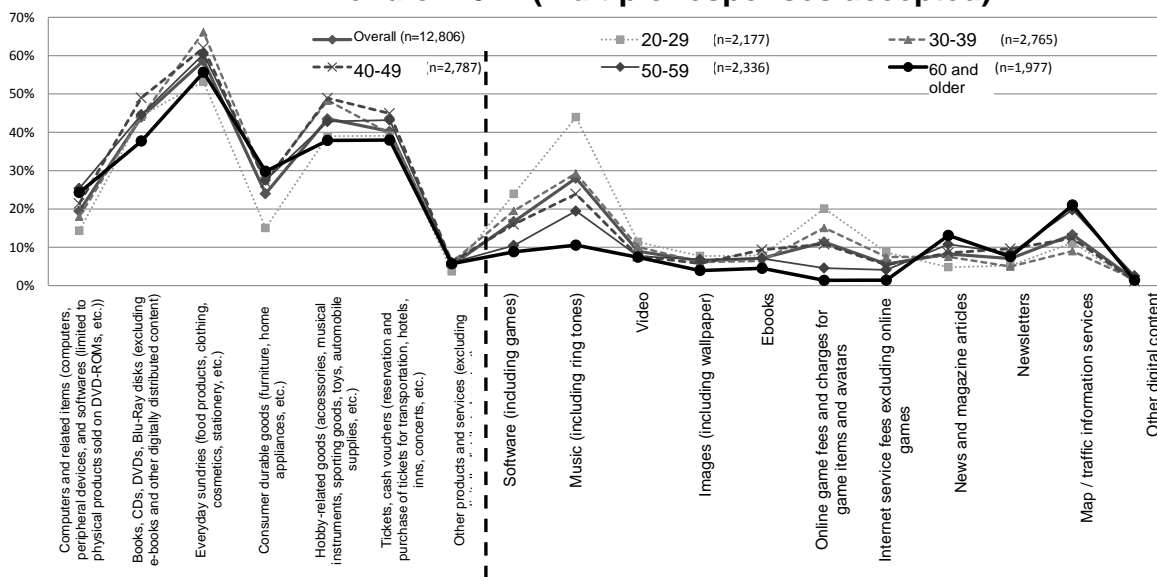
Note: as a percentage of Internet users

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

By type of goods and services bought and exchanged via the Internet, “everyday sundries” were purchased by the largest percentage, 58.6 percent, of people with the experience of making such purchases and transactions, followed by “books, CDs, DVDs, Blu-Ray disks” (44.0 percent) and “hobby-related goods” (43.5 percent).

By age group, the percentage of individuals who purchased “music (including melodic ringtones)” was higher in the 20-29 age group than in other age groups, while the percentage of individuals who purchased “consumer durable goods (furniture, home appliances, etc.)” was lower in that age group.

Figure 2-3: Goods and services bought over the Internet by age group — end of 2014 (multiple responses accepted)

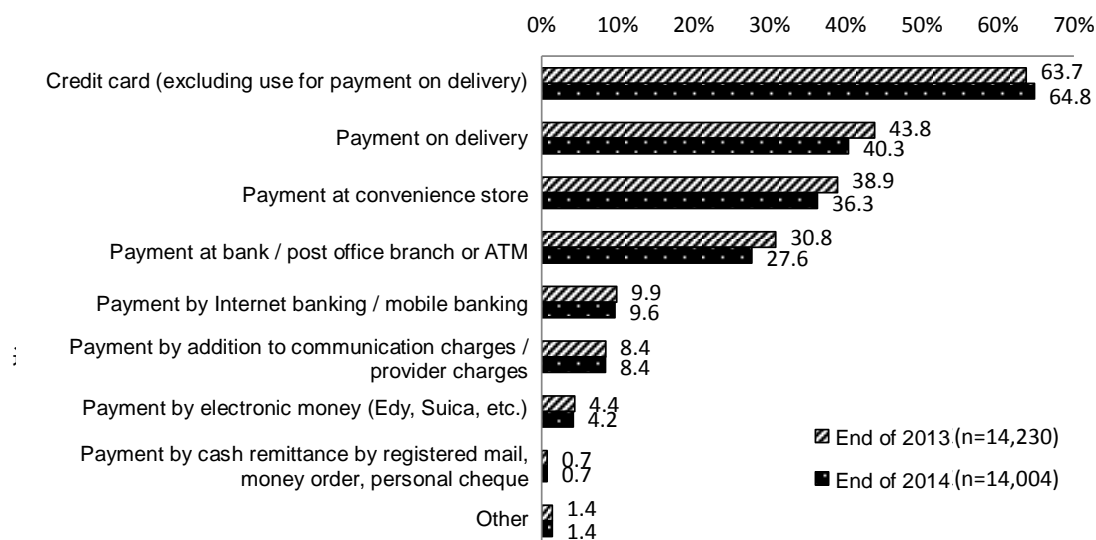


Note: as a percentage of individuals with the experience of Internet-based purchases

(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 64.8 percent. This was followed by “payment on delivery” (40.3 percent) and “payment at convenience store” (36.3 percent).

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



Note: as a percentage of individuals with the experience of Internet-based purchases

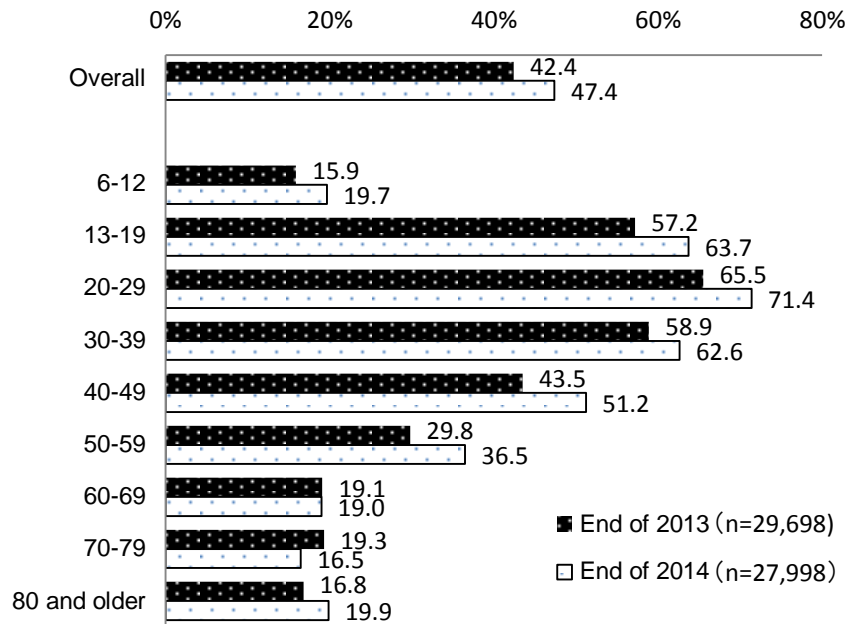
(4) Social media* usage

Of Internet users, 47.4 percent used social media, up 5.0 points from 42.4 percent in the previous year.

The most common purpose of the use of social media was “to communicate with current friends,” which was cited by 85.4 percent, followed by “to find information on topics of interest” (40.6 percent) and “to kill time” (29.9 percent).

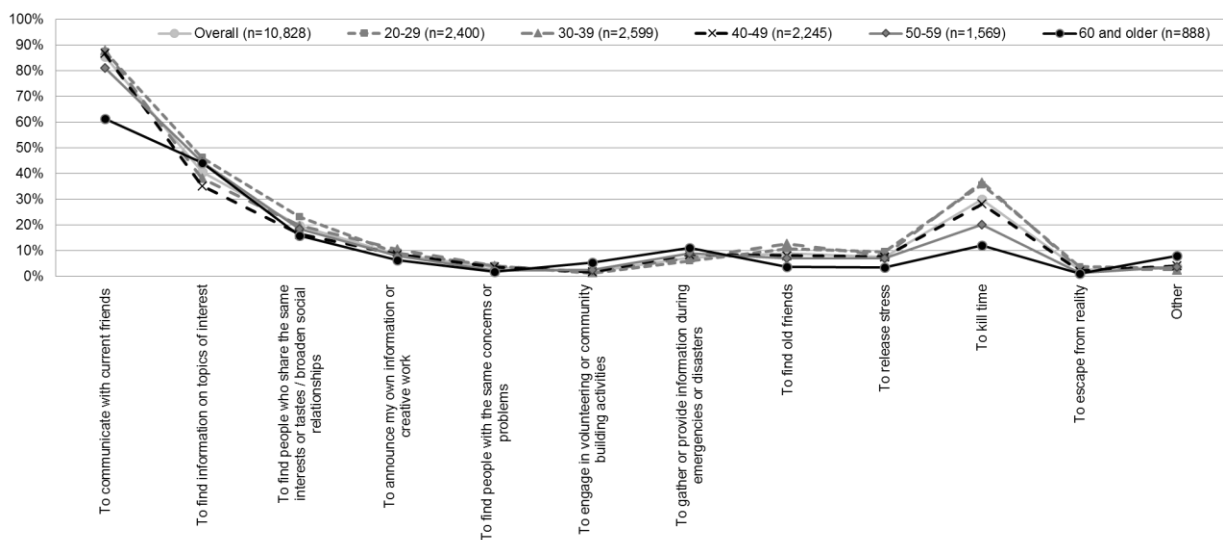
(Note) Social media refers to information services in which one can communicate with multiple people on the Internet.

Figure 2-5: Social media usage by age group



Note: as a percentage of Internet users

Figure 2-6: Purposes of social media usage by age group — end of 2014 (multiple responses accepted)



Note: as a percentage of social media users

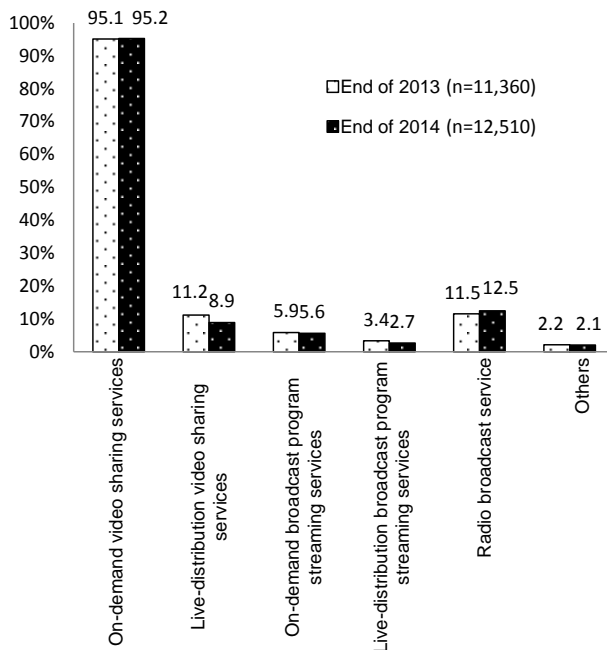
(5) Usage of audio and video content

The most common audio and video content service used was “on-demand video sharing services,” at 95.2 percent.

The most common device used to access audio and video content was “smartphones”, which was cited by 61.9 percent, followed by computers (55.4 percent).

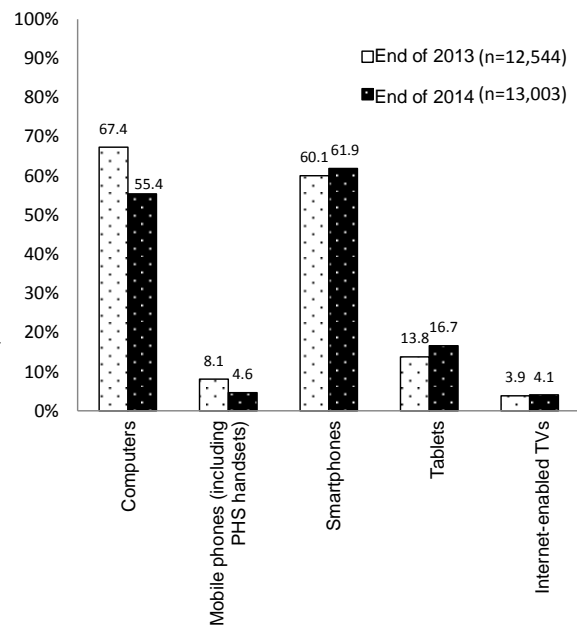
The most common purpose was “to watch videos by artists, etc., that I like,” at 61.6 percent. This was followed by “to watch popular / talked-about videos / programs” (47.2 percent).

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



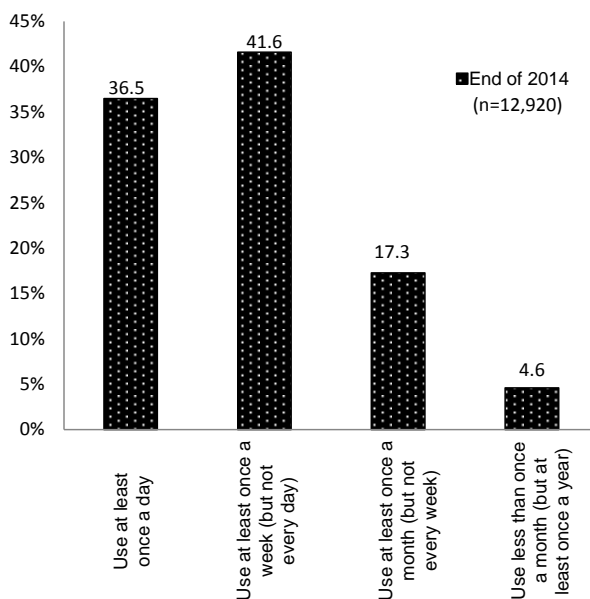
Note: as a percentage of audio and video content users

Figure 2-8: Devices used to access audio and video content (multiple responses accepted)



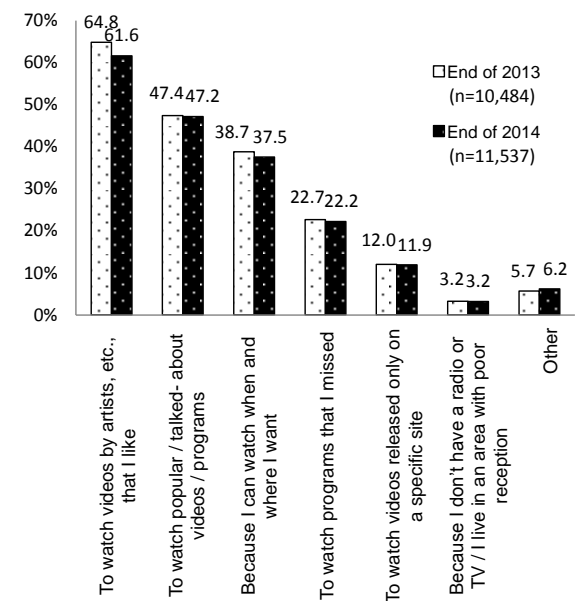
Note: as a percentage of audio and video content users

Figure 2-9: Frequency of audio and video content usage — end of 2014



Note: as a percentage of audio and video content users

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



Note: as a percentage of audio and video content users

3. Current ICT Usage by Businesses

(1) Construction of company communication networks

88.8 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 51.0 percent. This was followed by “IP-VPN” (39.8 percent) and “wide-area Ethernet” (34.0 percent).

Figure 3-1: Construction of company communication networks

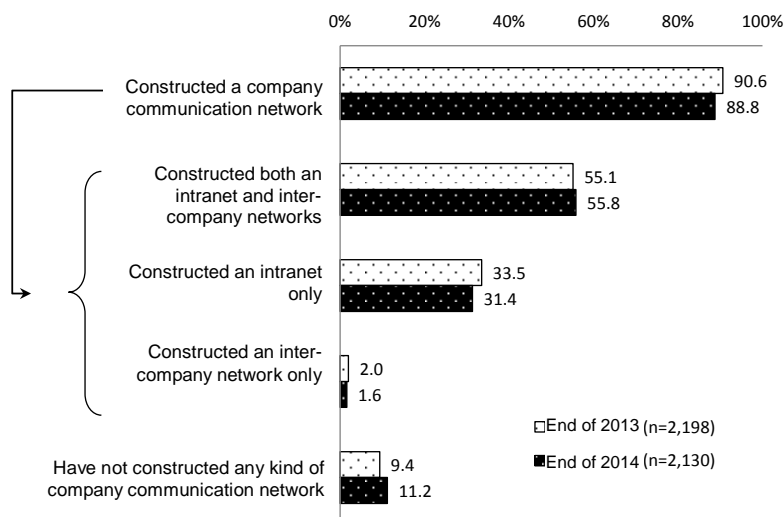


Figure 3-2: Construction of company communication networks by industry and capitalization

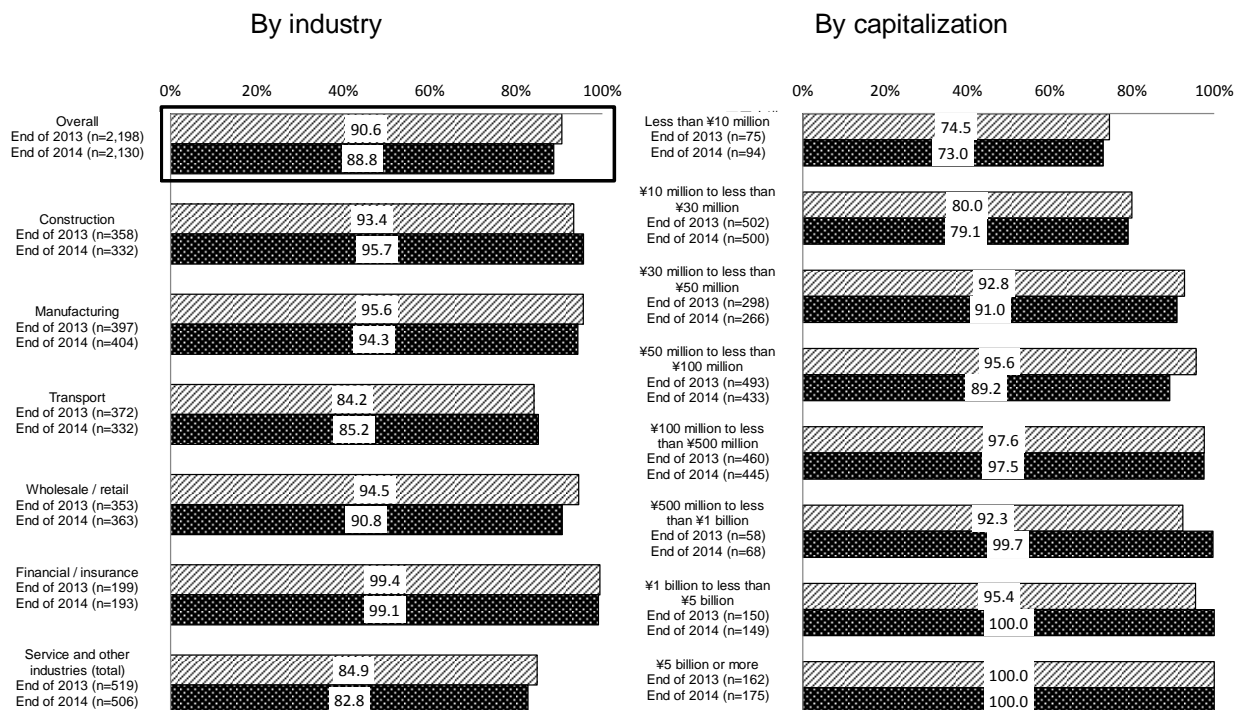
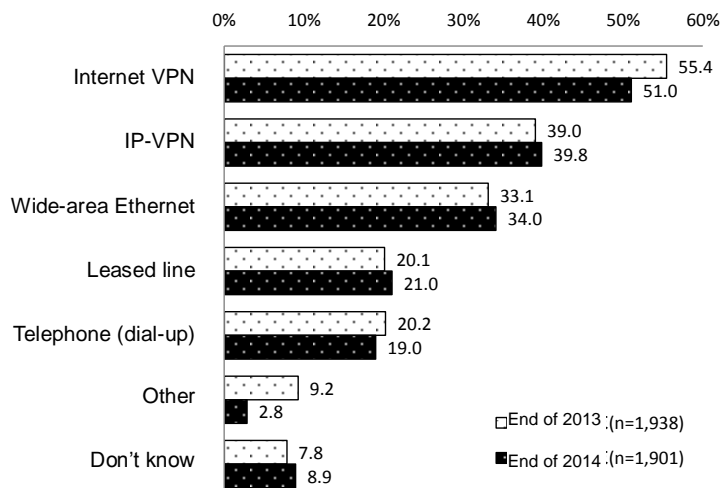


Figure 3-3: Primary communication services used on company communication networks (multiple responses accepted)



Note: as a percentage of businesses which have developed a company communication network

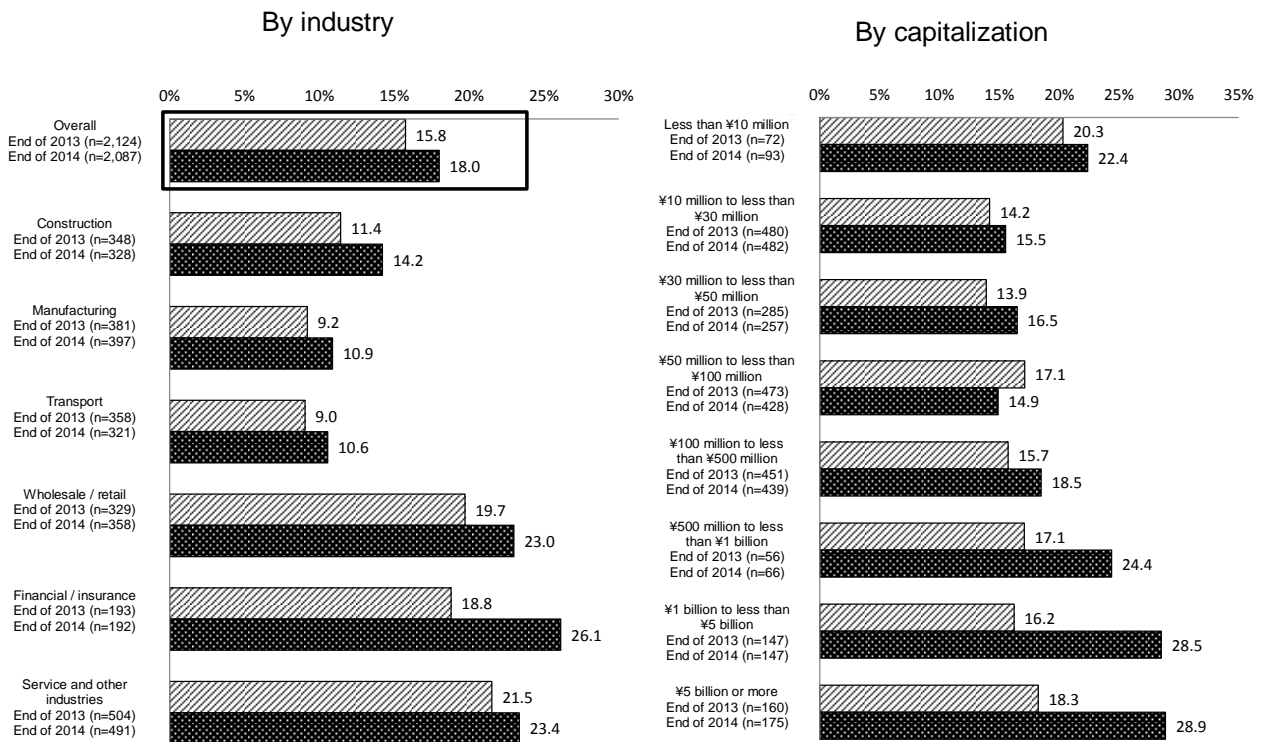
(2) Social media usage

Of businesses using the internet, 18.0 percent used social media services in at least some of their operations, up 2.3 points from 15.8 percent in the previous year.

By industry, “financial / insurance” had the highest social media usage rate, at 26.1 percent. This was followed by “service and other industries” (23.4 percent) and “wholesale / retail” (23.0 percent).

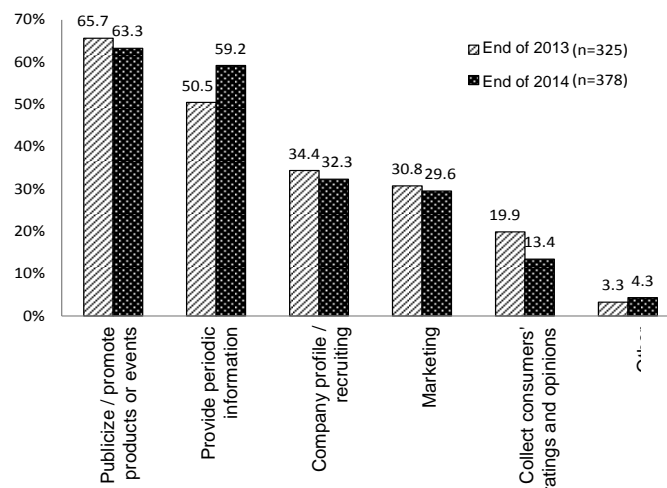
Of businesses that said they use social media, the most common purpose / application was “present / promote products or events,” at 63.3 percent. This was followed by “provide periodic information” (59.2 percent) and “company profile / recruiting” (32.3 percent).

Figure 3-4: Social media usage by industry and capitalization



Note: as a percentage of businesses using the Internet

Figure 3-5: Purpose / application of social media usage (multiple responses accepted)



Note: as a percentage of businesses using social media services

(3) E-commerce usage

47.2 percent of businesses engaged in e-commerce (purchasing or selling over the Internet).

By industry, “financial / insurance” had the highest usage rate, at 63.9 percent. This was followed by “wholesale / retail” (60.1 percent) and “manufacturing” (49.6 percent).

Among businesses that used the Internet for sales, the most common Internet sales model was “e-store (own site),” at 70.1 percent. This was followed by “e-store (store in an e-mall)” (34.1 percent).

Figure 3-6: E-commerce usage by industry and capitalization — end of 2014 (multiple responses accepted)

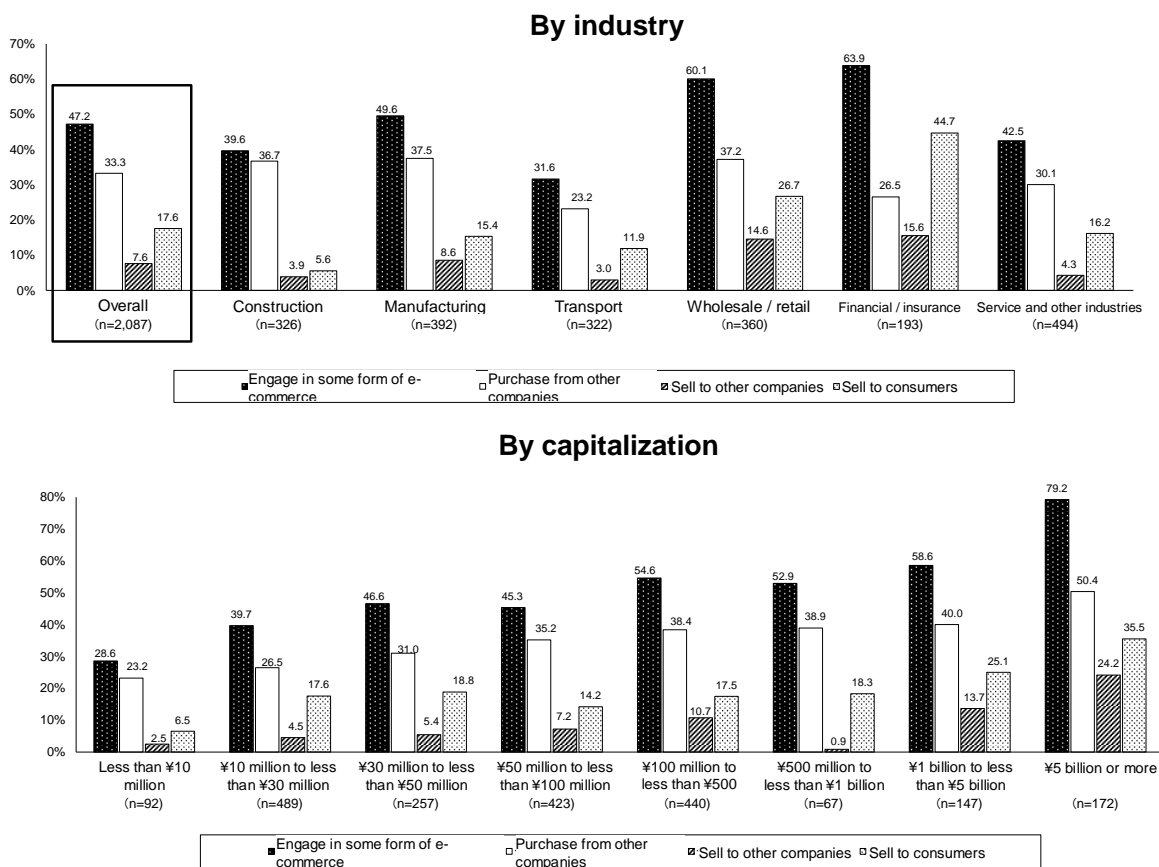
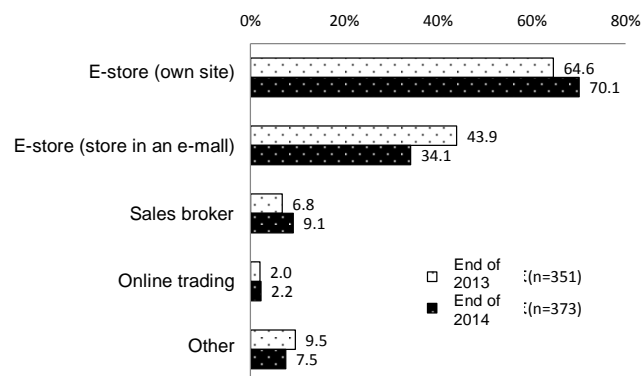


Figure 3-7: Internet sales models (multiple responses accepted)



Note: as a percentage of businesses using social media services

(4) Use of Internet advertising

Of the surveyed businesses, 25.8 percent used Internet advertising.

By industry, “financial / insurance” had the highest advertising rate, at 57.4 percent. This was followed by “wholesale / retail” (36.8 percent) and “service and other industries” (29.5 percent).

The most common type of Internet advertisement was “banner ads,” at 49.6 percent. This was followed by “newsletters” (36.0 percent) and “text ads” (26.4 percent).

Figure 3-8: Internet advertising usage by industry and capitalization

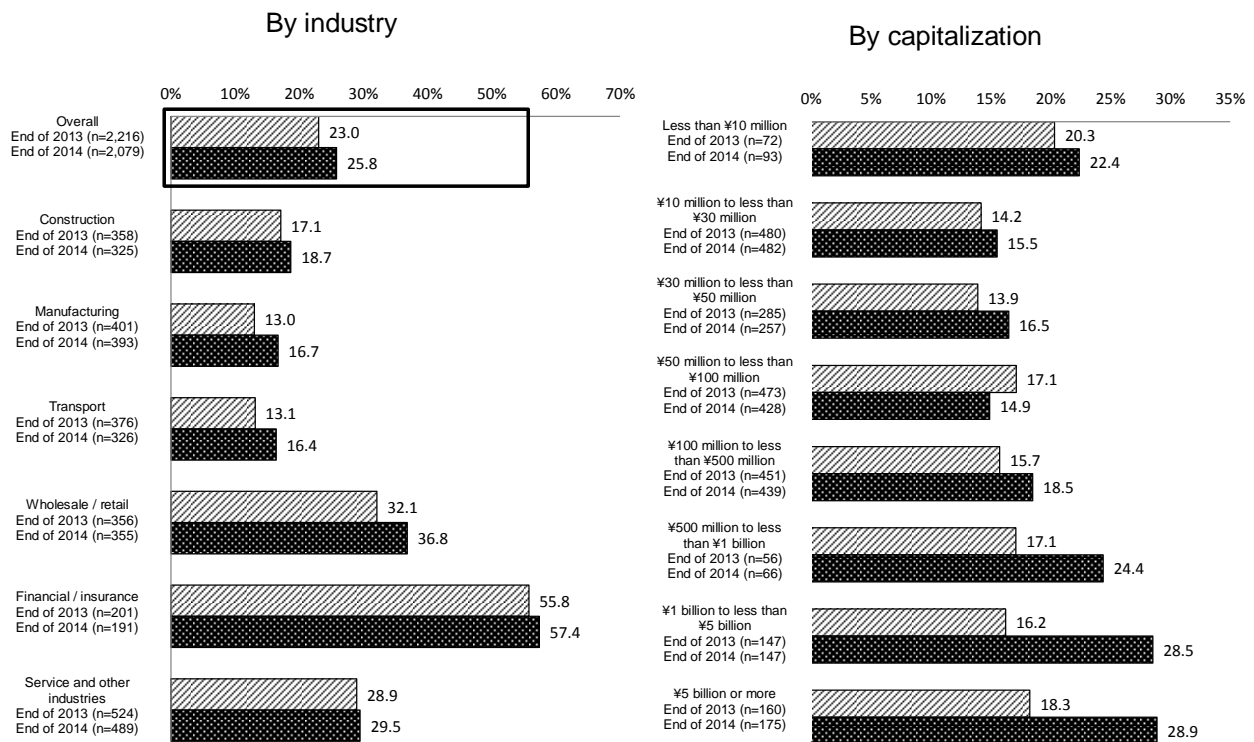
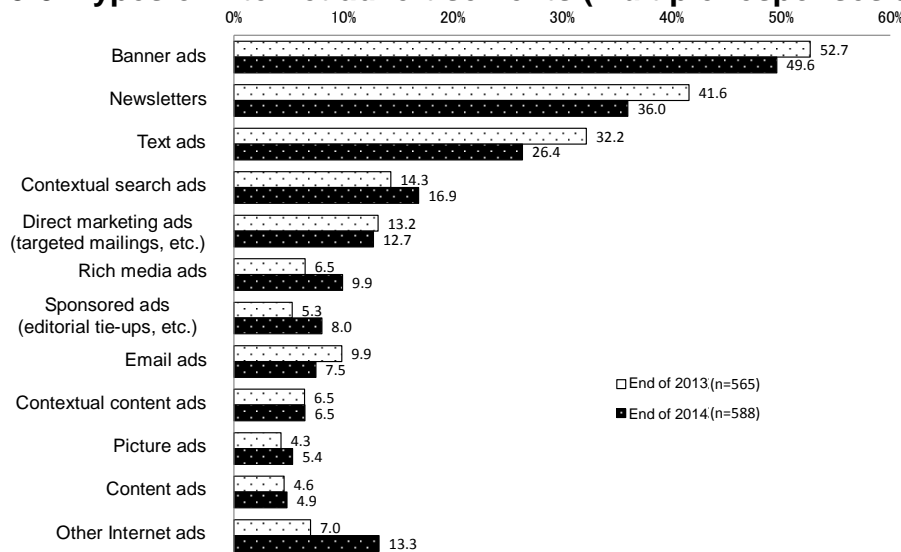


Figure 3-9: Types of Internet advertisements (multiple responses accepted)



Notes: As a percentage of businesses using Internet advertising

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, 48.6 percent have adopted services, systems, or other ICT tools that use wireless communication technology. The most common tool was “contactless IC cards,” at 28.8 percent.

By industry, the “financial / insurance” industry had the highest adoption rate with respect to ICT tools other than “GPS, mobile phone, or other location devices.”

Of the surveyed businesses, 72.5 percent selected the reply “Do not use ICT tools, and no plans to use ICT tools.”

* 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 3-10: Adoption of services or systems using ICT tools

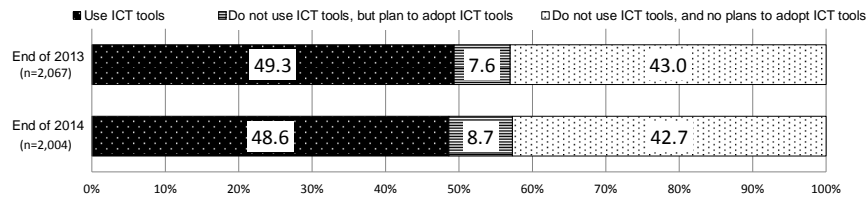


Figure 3-11: Adoption of ICT systems and tools by industry and capitalization — end of 2014

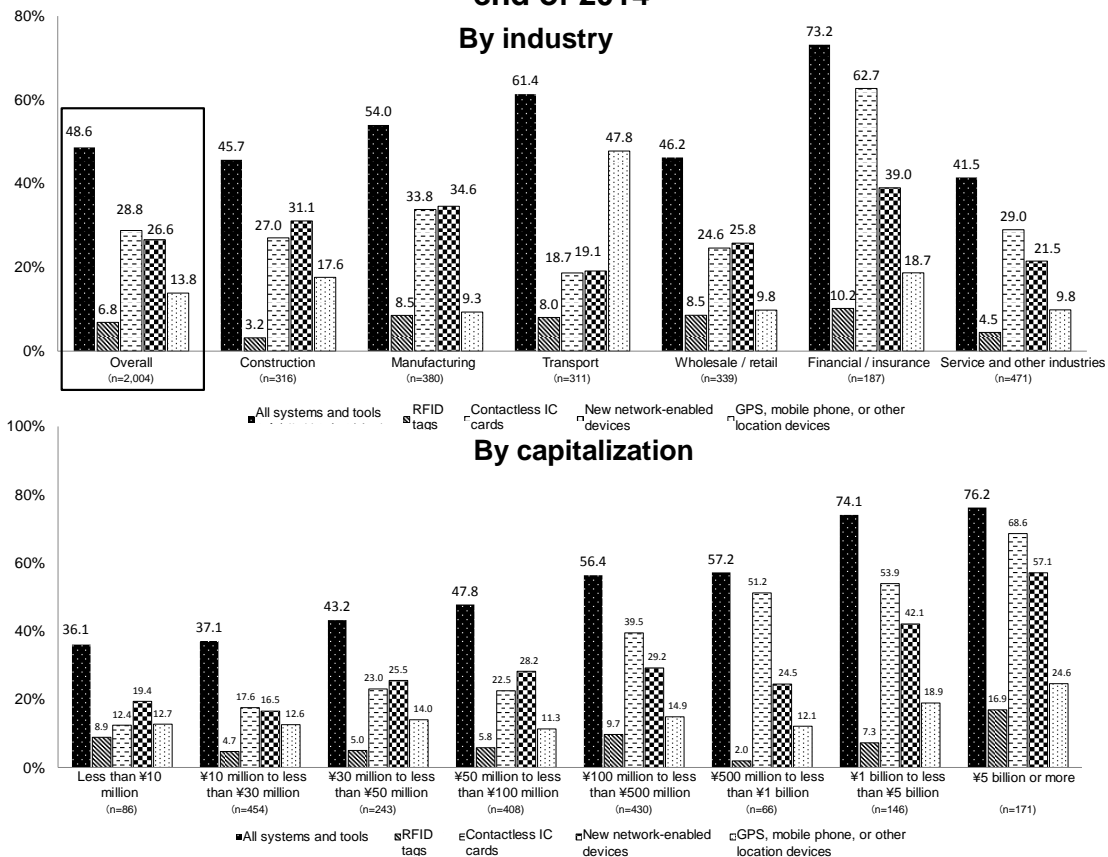
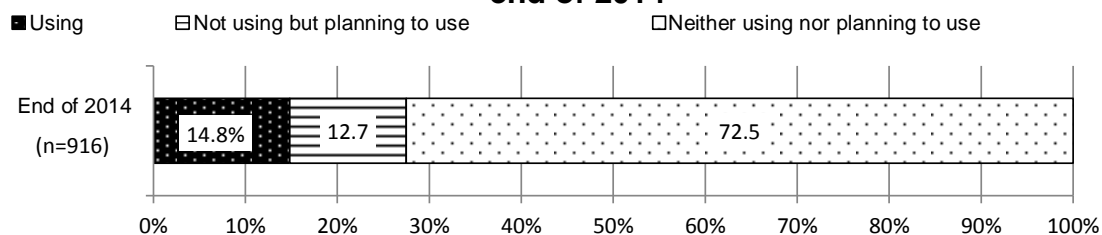


Figure 3-12: Use of information collected through systems and tools — end of 2014



Note: as a percentage of businesses which have adopted systems and tools using wireless communication technology

(6) Cloud computing service usage

Of the surveyed businesses, 38.7 percent used cloud computing services (cloud services), up 5.7 points from 33.1 percent in the previous year.

By type of cloud service, file management/data storage was used by the highest percentage, 46.3 percent, followed by “email” (44.4 percent) and “server applications” (39.9 percent).

As for the effects of the use of cloud services, 82.7 recognized either “very beneficial” or “somewhat beneficial” effects.

Figure 3-13: Transitions in cloud service usage

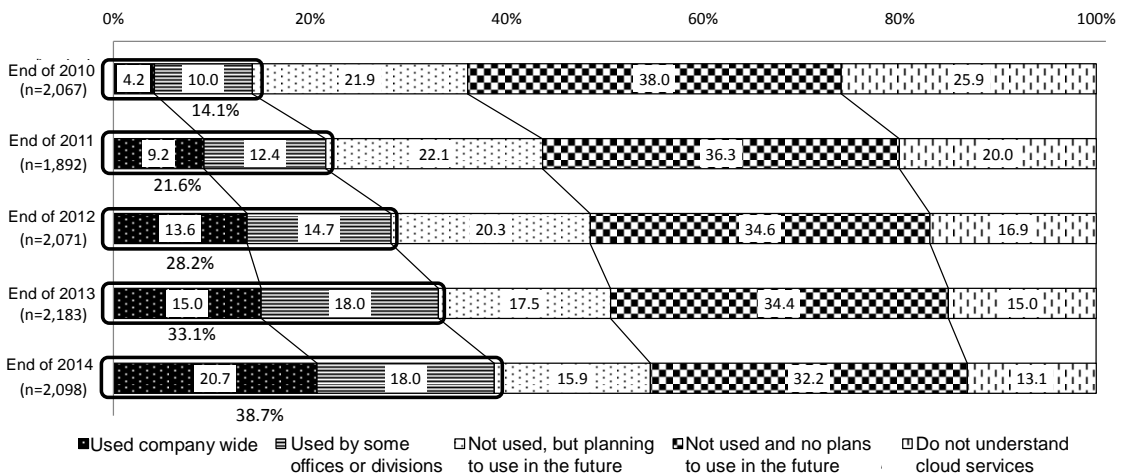


Figure 3-14: Cloud service usage by industry and capitalization

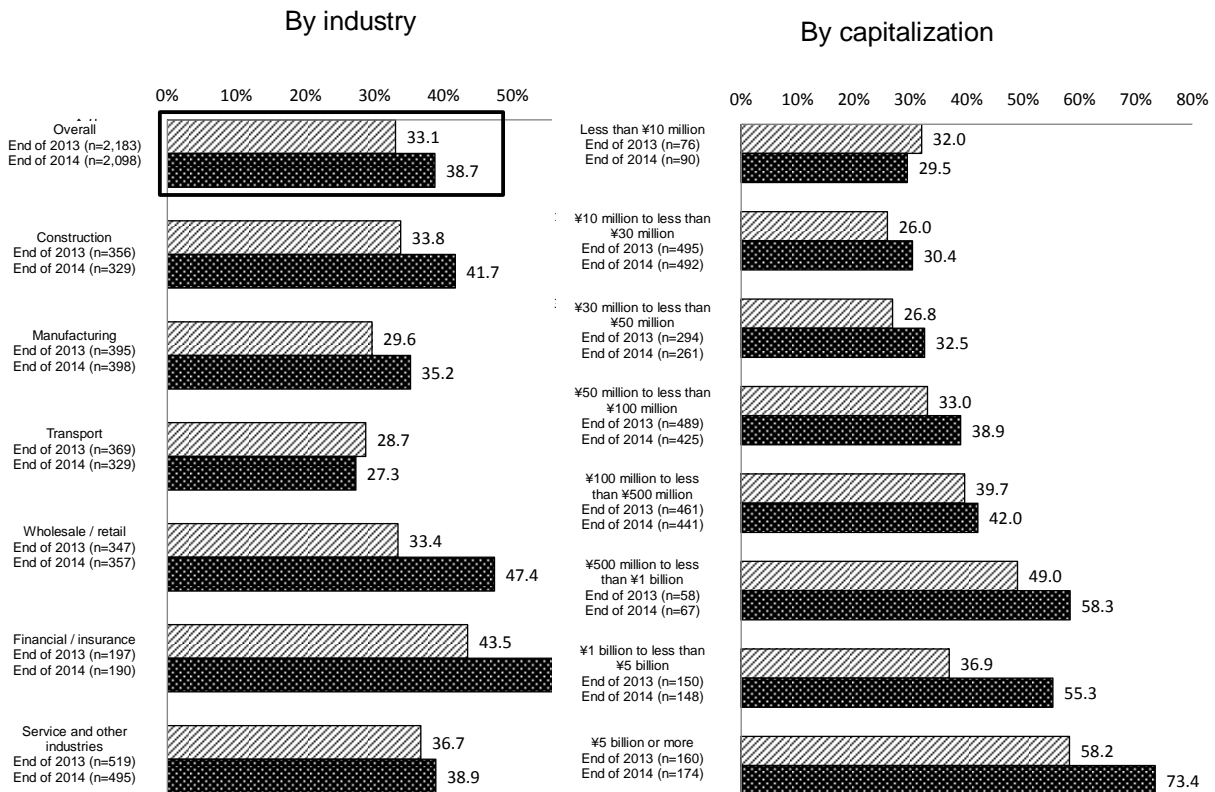
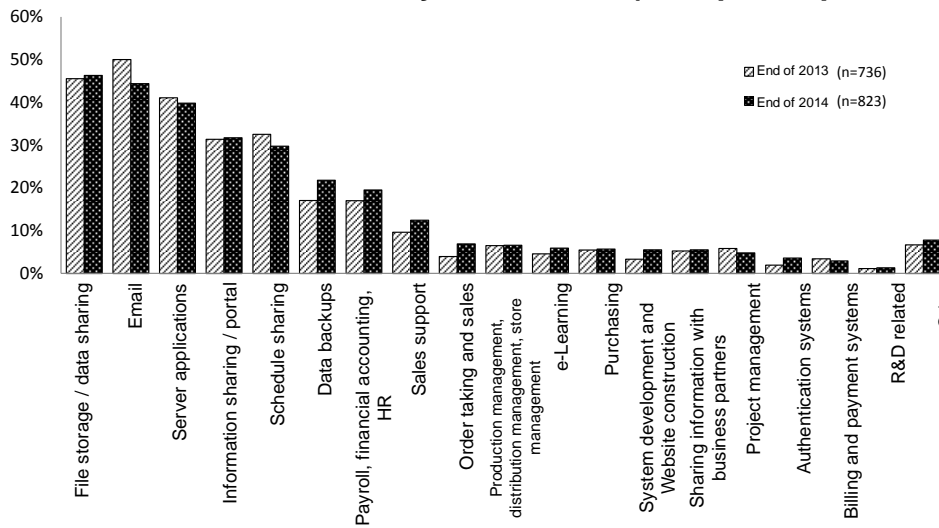
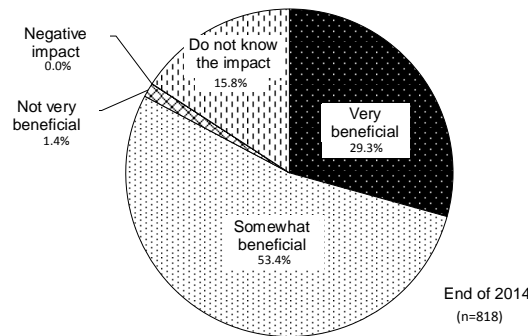


Figure 3-15: Cloud services used by businesses (multiple responses accepted)



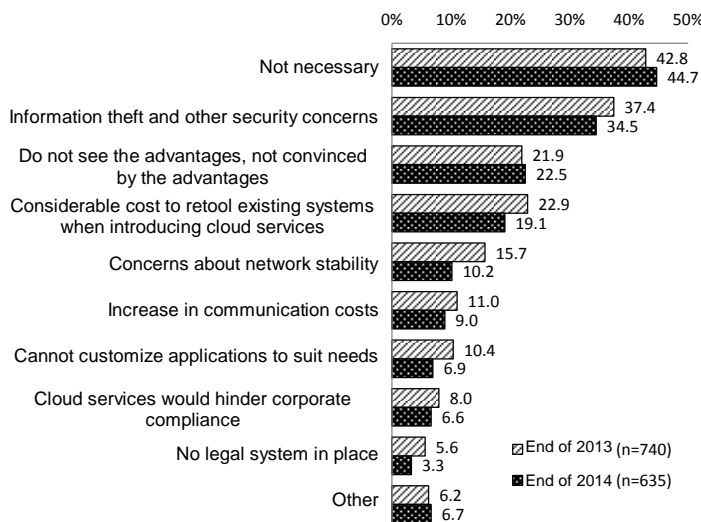
Note: as a percentage of businesses using cloud services

Figure 3-16: Impact of cloud computing services — end of 2014



Note: as a percentage of businesses using cloud services

Figure 3-17: Reasons for not using cloud services (multiple responses accepted)



Note: as a percentage of businesses which neither used nor planned to use cloud services.

(7) Introduction of Telework*

Of the surveyed businesses, 11.5 percent have introduced telework, up 2.2 points from 9.3 percent in the previous year.

By capitalization size, more than 50 percent of businesses with 5 billion yen or more in capital have introduced telework.

By type of telework, “mobile work” was introduced by the largest percentage, 66.8 percent. The most common percentage of telework employees was “less than 5 percent,” at 49.9 percent.

The highest ranked purpose for introducing telework was “raise efficiency (productivity) of routine business processes,” at 51.3 percent. This was followed by “reduce workers’ transportation times” (45.0 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 recognized the benefits of telework: 84.2 percent replied that they have found telework either “very beneficial” or “somewhat beneficial.”

Figure 3-18: Telework introduction

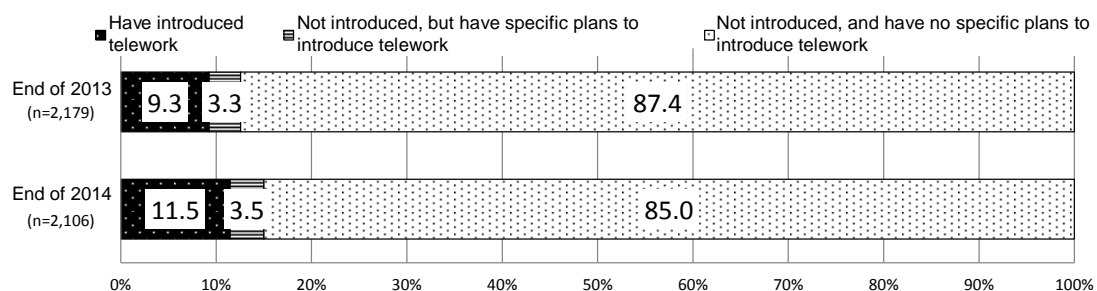


Figure 3-19: Telework introduction by capitalization — end of 2014

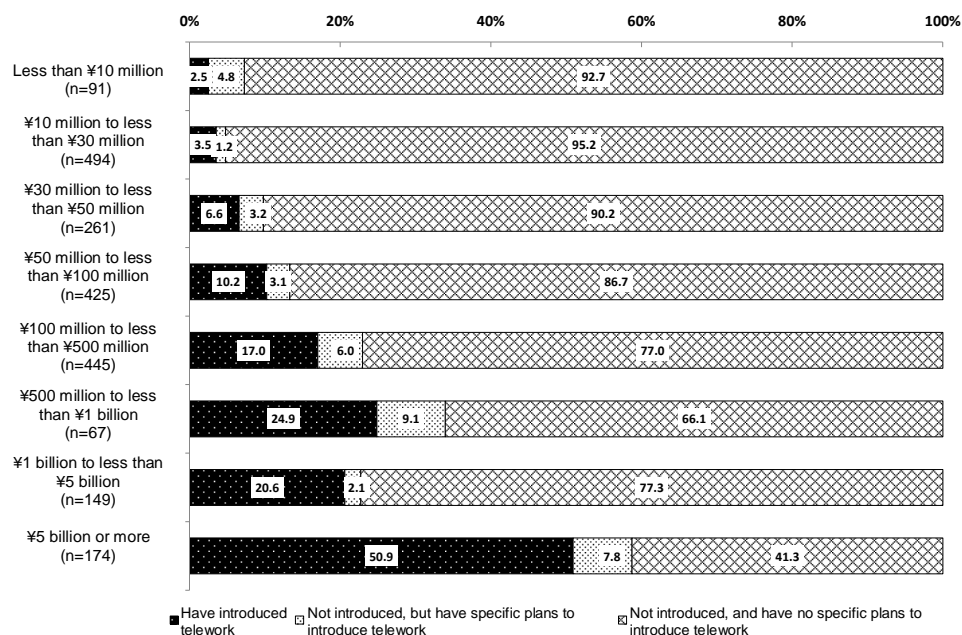
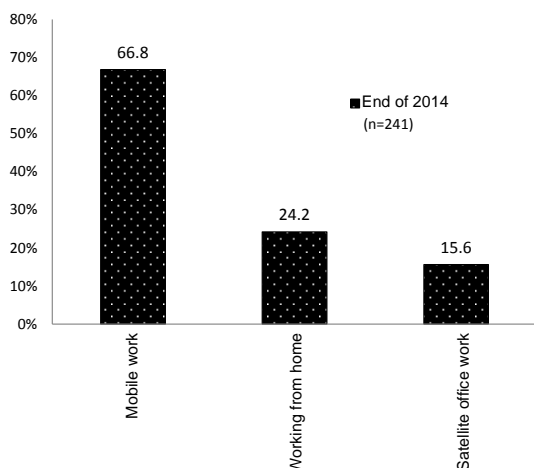
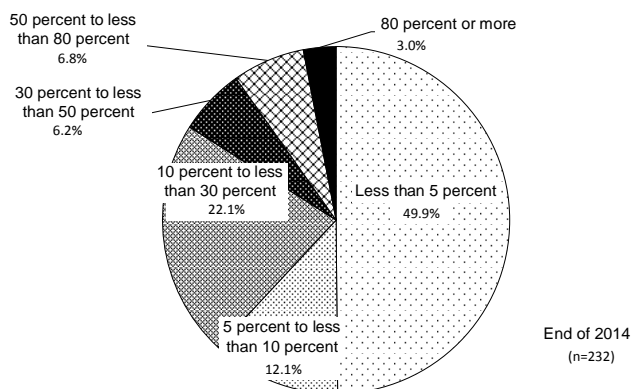


Figure 3-20: Type of telework introduced — end of 2014



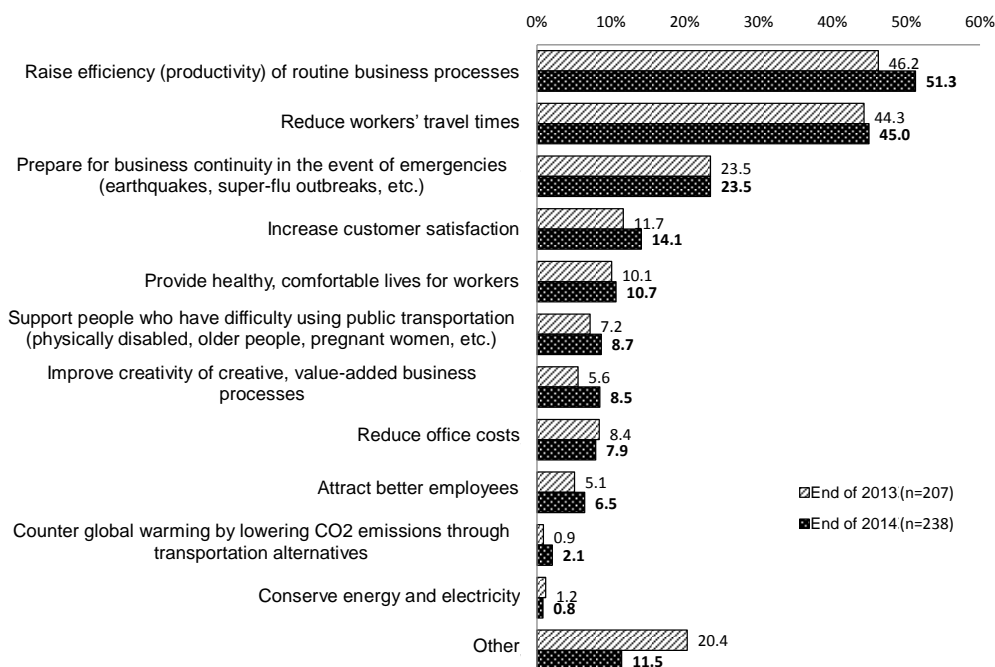
Note: as a percentage of businesses which have introduced telework

Figure 3-21: Percentage of employees using telework — end of 2014



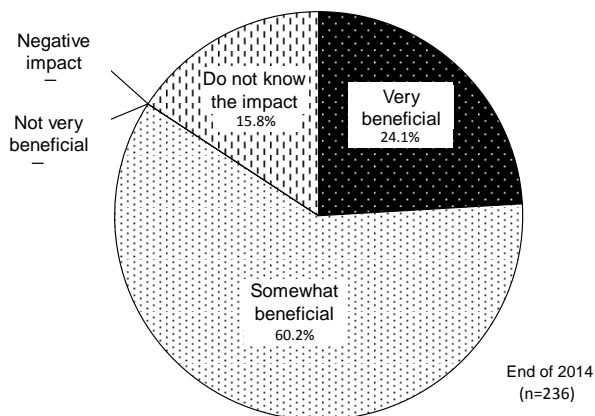
Note: as a percentage of businesses which have introduced telework

Figure 3-22: Purposes of introducing telework (multiple responses accepted)



Note: as a percentage of businesses which have introduced telework

Figure 3-23: Telework benefits — end of 2014



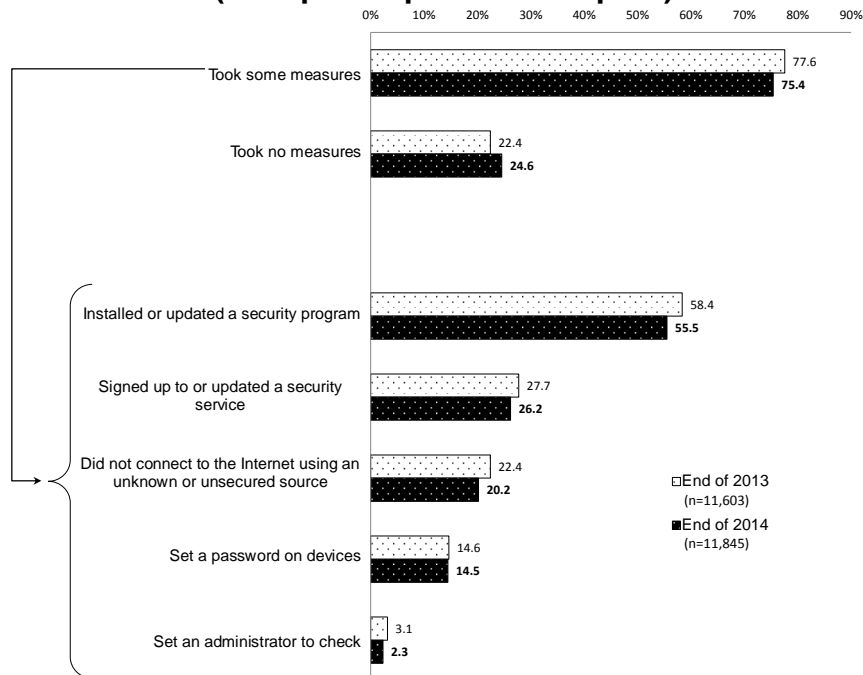
Note: as a percentage of businesses which have introduced telework
The mark “—” indicates the absence of businesses that selected the relevant reply.

4. Safety and security efforts

(1) State of security measures (households)

Among households that use the Internet, 75.4 percent have taken some security measures. The common security measures taken were “installed or updated a security program” (55.5 percent), “signed up to or updated a security service” (26.2 percent) and “did not connect to the Internet using an unknown or unsecured source” (20.2 percent).

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



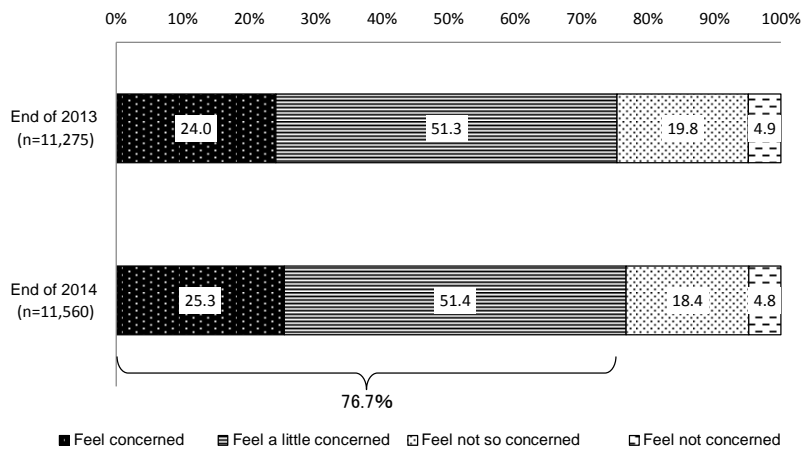
Note: as a percentage of households with at least one person who used the Internet in the past one year

(2) Concerns about using the Internet (households)

Among households that use the Internet, 70 percent or more of households (76.7 percent) feel some concern — either “feel a little concerned” or “feel concerned” — about using the Internet.

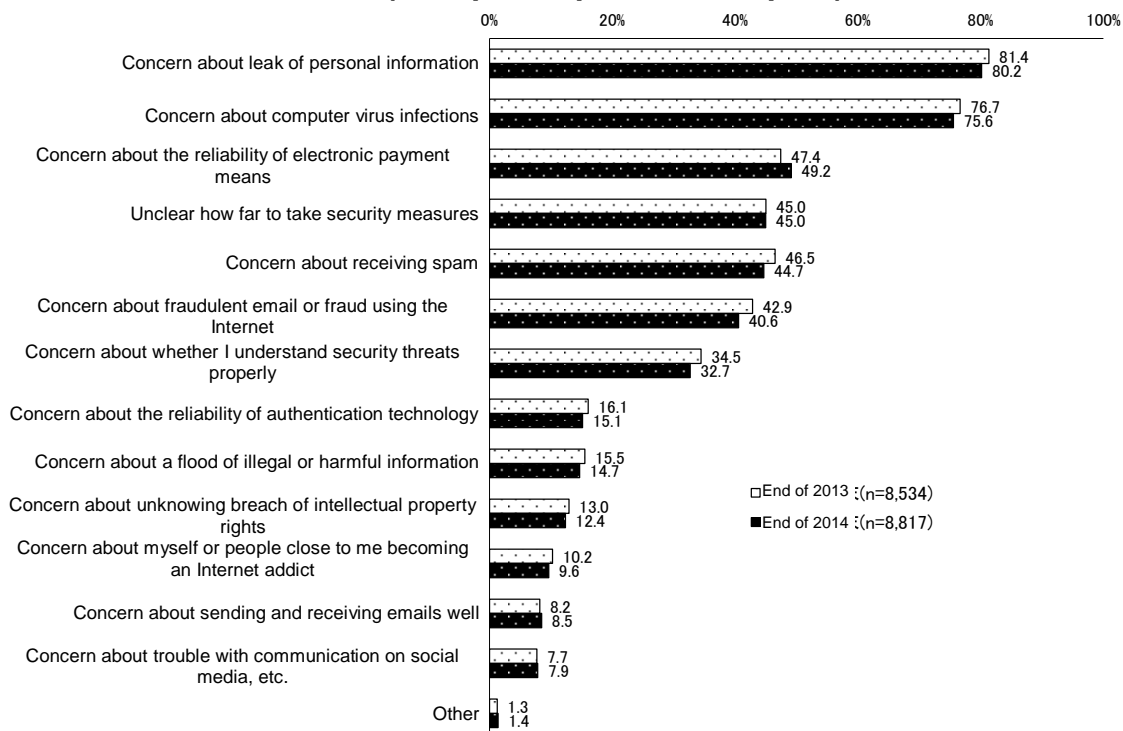
Among households with concerns about using the Internet, the largest concern was “concern about leak of personal information” at 80.2 percent. This was followed by “concern about computer virus infections” (75.6 percent) and “concern about the reliability of electronic payment means” (49.2 percent). This suggests that most concerns are centered on information security.

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



Note: as a percentage of households with at least one person who used the Internet in the past one year

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



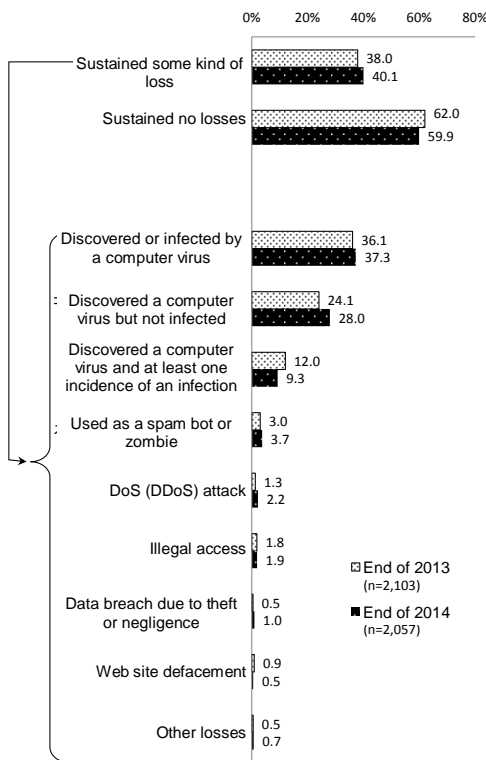
Note: as a percentage of households which replied that they “feel concerned” or “feel a little concerned” about using the Internet

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

Among businesses that used company communication networks or the Internet, 40.1 percent reported some type of loss resulting from a security breach during the use of information-communication networks in the past year, while 37.3 percent said they discovered or were infected by a computer virus.

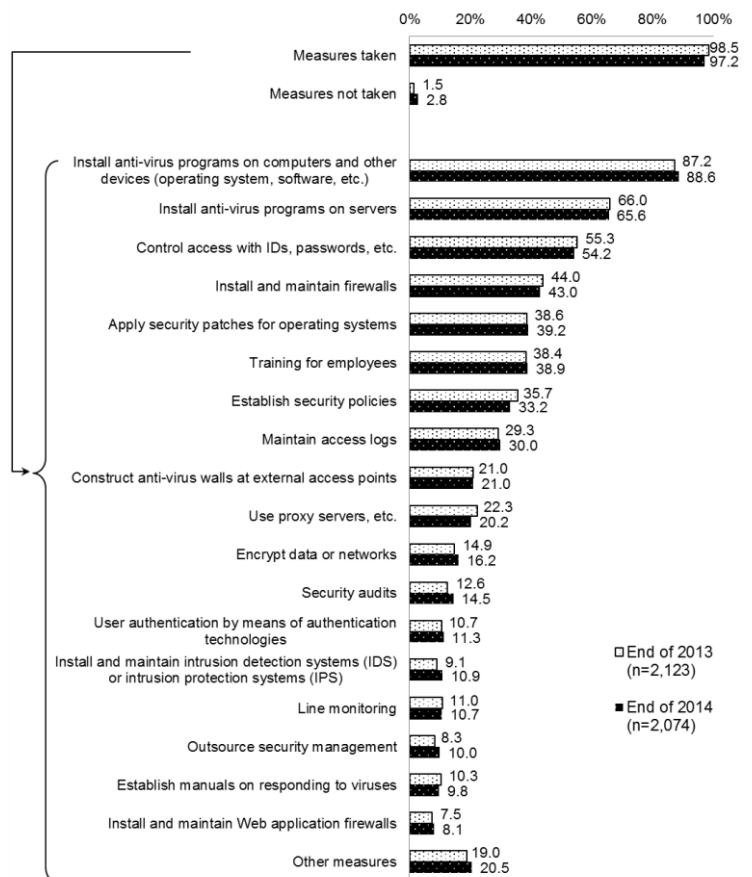
The percentage of businesses that implemented some security measures was 97.2 percent. By type of security measure, the implementation rate was 88.6 percent for “install anti-virus programs on computers and other devices (operating system, software, etc.)” 65.6 percent for “install anti-virus programs on servers” and 54.2 percent for “control access with IDs, passwords, etc.”

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



Note: as a percentage of businesses using company communication networks or the Internet

Figure 4-5: State of security measures (businesses) (multiple responses accepted)



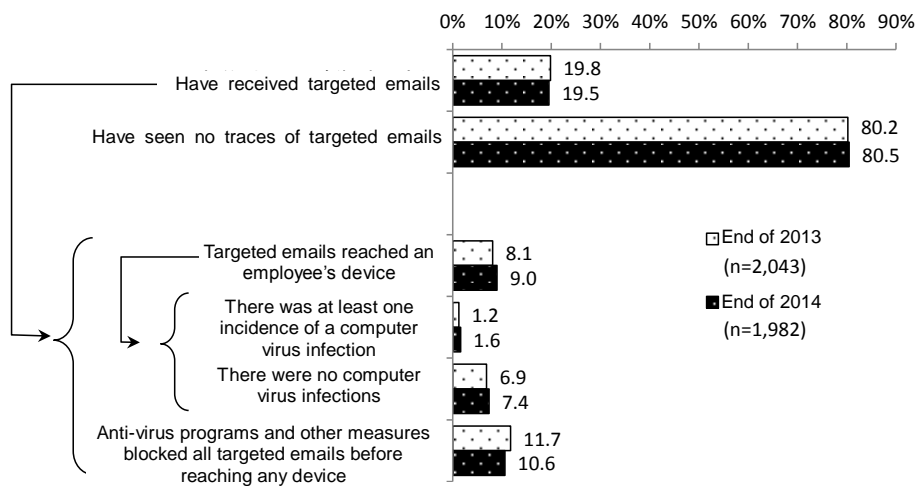
Note: as a percentage of businesses using company communication networks or the Internet

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

Of businesses using company communication networks or the Internet, 19.5 percent detected traces of targeted emails in the past year, while 1.6 percent experienced at least one incidence of a virus infection.

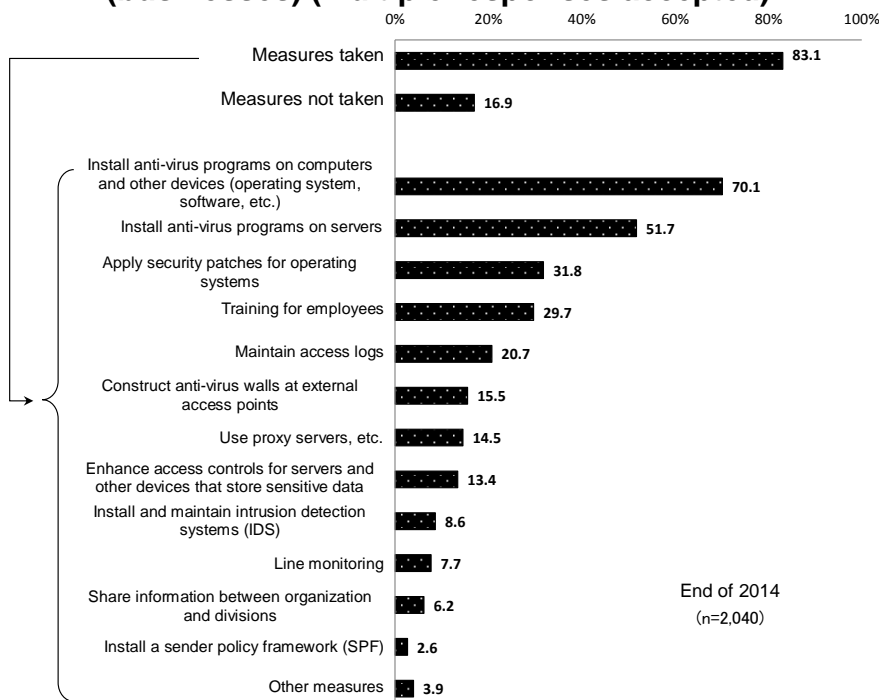
83.1 percent of businesses had taken security measures against targeted emails. The most common security measure was “install anti-virus programs on computers and other devices (operating system, software, etc.),” at 70.1 percent. This was followed by “install anti-virus programs on servers” (51.7 percent) and “apply security patches for operating systems” (31.8 percent).

Figure 4-6: Losses from targeted emails (businesses)



Note: as a percentage of businesses using company communication networks or the Internet

Figure 4-7: Security measures against targeted emails — end of 2014 (businesses) (multiple responses accepted)

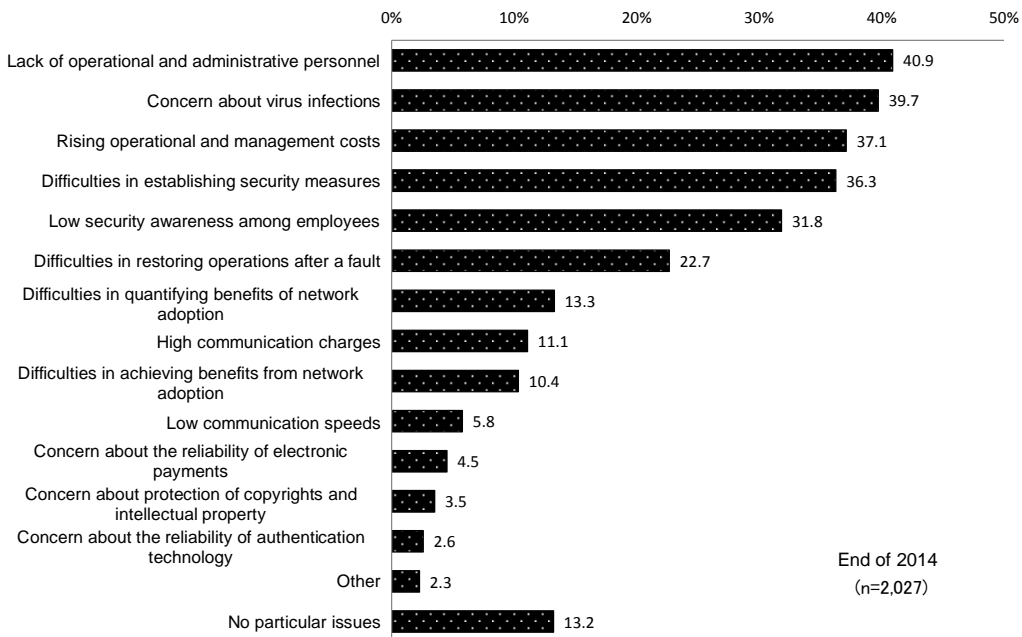


Note: as a percentage of businesses using company communication networks or the Internet

(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 40.9 percent. This was followed by “concern about virus infections,” (39.7 percent) and “rising operational and management costs” (37.1 percent).

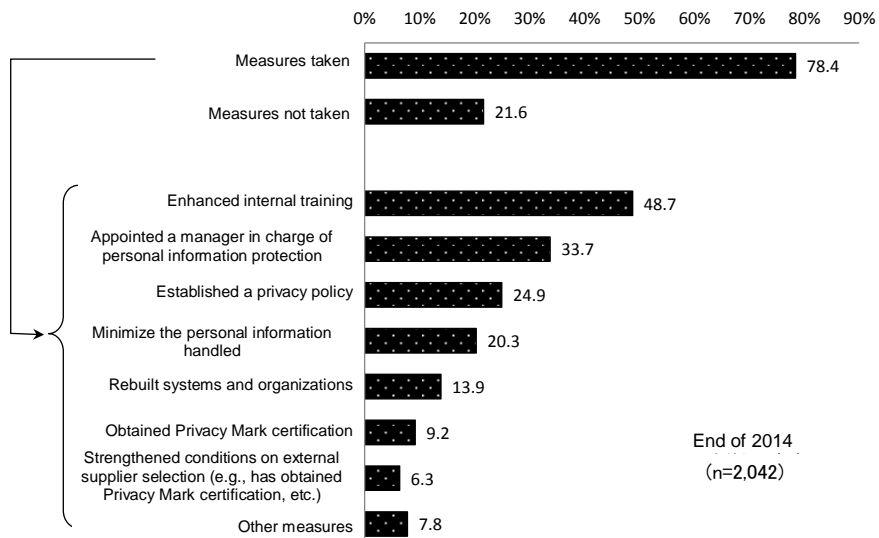
Figure 4-8: Issues associated with Internet, intranets, and other network usage — end of 2014 (businesses) (multiple responses accepted)



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

Among the surveyed businesses, 78.4 percent have taken some personal information protection measures. The common measures were “enhanced internal training” (48.7 percent), “appointed a manager in charge of personal information protection” (33.7 percent) and “established a privacy policy” (24.9 percent).

Figure 4-9: State of personal information protection measures — end of 2014 (businesses) (multiple responses accepted)

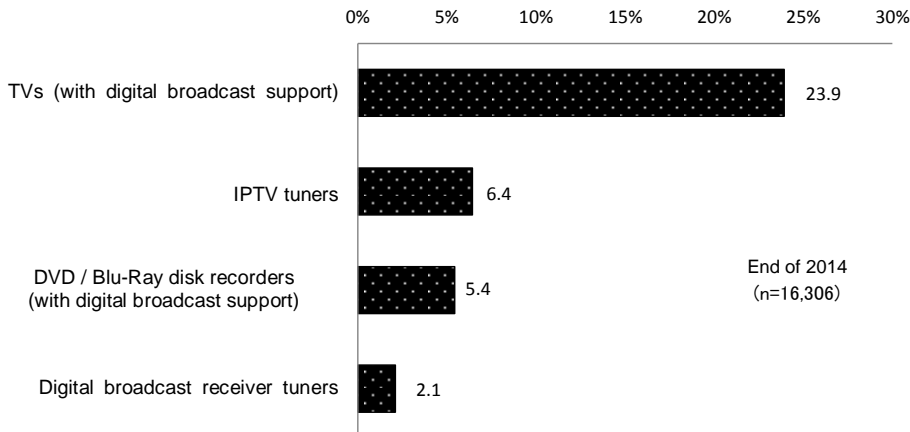


5. Usage of Digital Television Broadcasting

(1) Ownership of Internet-connected digital TV broadcast tuners (households)

Of the surveyed households, 23.9 percent owned Internet-connected TV tuners (with digital broadcast support), while 6.4 percent owned IPTV tuners.

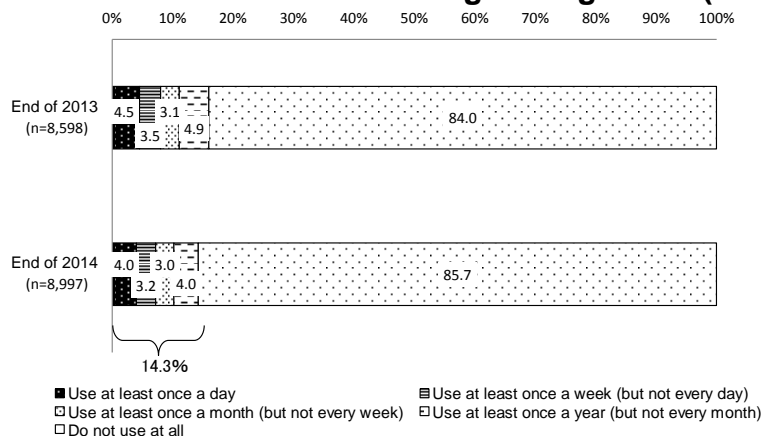
Figure 5-1: Ownership of Internet-connected digital TV broadcast tuners — end of 2014 (households)



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

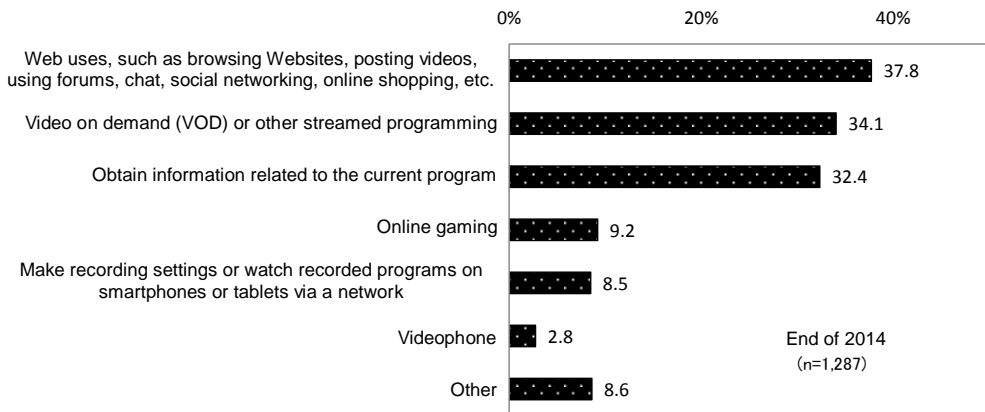
Of households owning digital TV broadcast tuners, 14.3 percent used the Internet access function of the tuners in the past year. The most common use of Internet access function was “web uses,” at 37.8 percent. This was followed by “video on demand or other streamed programming” (34.1 percent).

Figure 5-2: Internet access function usage of digital TV (households)



Note: as a percentage households owning digital TV broadcast tuners

Figure 5-3: Purposes of Internet access function usage — end of 2014 (households) (multiple responses accepted)



Note: as a percentage households owning digital TV broadcast tuners

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

58.1 percent of households were inclined to use the Internet access function. The common intention of Internet access function usage were “video on demand or other streamed programming” (27.1 percent), “videophone” (22.5 percent) and “make recording settings or watch recorded programs” (21.6 percent).

Figure 5-4: Intention of Internet access function usage of digital television (households) (multiple responses accepted)

