

# E-commerce Growth and Mobile Devices

by

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## **AUTHOR'S DECLARATION**

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

## **Abstract**

As with ordinary in-store shopping, product characteristics affect an individual's online purchase decisions. The variety of devices used to access the Internet also affects the probability of engaging in e-commerce. The objective of this study is to investigate e-commerce behaviour as it varies by kinds of products and devices, personal computers and mobile devices. Using national survey (2005-2012) data from Canada, we explore two broad factors: demographic factors and Internet-access factors that influence the probability of engaging in e-commerce in 15 product categories. Our study reveals that consumers behave differently according to product category and access device. We detect that, in general, perceived risk by consumers produces a negative effect on the likelihood of engaging in e-commerce, although the effect varies by category. Additionally, personal computers are found to cause more security concerns to consumers than do mobile devices. Simultaneously, having a mobile device can increase the odds of engaging in e-commerce more than having a personal computer does. Mobile users are more inclined to purchase online. In addition, demographic information is related to purchase probability in different degrees for each category. By identifying the key factors affecting the actual online purchase, our results may help small and medium-sized enterprises to determine their sales channels and establish their marketing strategies.

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# Chapter 1

## Introduction

Electronic commerce, commonly known as e-commerce, is the trade in products or services using computer networks, such as the Internet. In recent years, e-commerce has experienced a tremendous increase in popularity with the rapid expansion of the Internet. In 2012, business-to-consumer (B2C) e-commerce global sales grew 21.1% over the previous year and surpassed 1 trillion US dollars (eMarketer, 2013). Rapid growth and market share concerns has drawn the attention of retailers, marketers and researchers. In 2012, the number of Internet users worldwide grew to 2.4 billion, 35.7% of the world's population (Internet World Stats, 2014). The high Internet adoption rate is viewed as a business opportunity for e-commerce. Indeed, e-commerce is expanding rapidly and permeates all forms of product sales. However, compared with the Internet adoption rate, e-commerce is not as widely accepted. Some results may be exaggerated by the media and some predictions of e-commerce market size may be overly optimistic. This failing may result from only partially understanding consumer shopping behaviour, underestimating the development of shopping devices, and ignoring the heterogeneity of online products.

In this thesis, our objective is to explore the different shopping behaviours exhibited by consumers when they purchase different products or services and use different devices to access the Internet. We will demonstrate that the accessing medium is also an important factor in e-commerce, and it is not appropriate to ignore its effects. Hence, by recognizing that not only socio-economic properties—such as income, education and gender—but also the diversity of products and devices affect online shopping choices, we investigate different



shopping behaviours for diverse products purchased through different devices, namely personal computers (PCs) and mobile devices. That way, we can reduce the heterogeneity for different products types and identify the effects of different devices.

This study also provides a better understanding of consumer shopping decisions. The literature has gaps in the following aspects. First, a sample size issue exists in most studies. If sample size and lack of consumer heterogeneity are taken into account, previous research may not reflect the circumstances of e-commerce comprehensively. Even if some national surveys have been applied in previous research, the results are inconclusive because of the one shot nature of the survey. Generally, only one period (usually one year) is discussed in any study, which may not illustrate the dynamic changes in consumer attitudes towards e-commerce over two or more years. Second, there has been broad discussion about factors affecting e-commerce adoption but little about product heterogeneity in e-commerce. Last but not least, a number of papers have published their findings in e-commerce or M-commerce (mobile commerce) but only a few compared both (Ozok and Wei, 2010). Most researchers (Varshney, Vetter, and Kalakota, 2000) believed mobile computing will bring a new opportunity to e-commerce but did not provide convincing evidence. In our study, we explore all the issues above, based on data supported by a national survey conducted by Statistics Canada.

Our contributions to the literature include the following: we consider up to 15 categories to help us address the heterogeneity of products issue in exploring online shopping behaviour. We also take into account the effects that the device chosen to access the Internet has on

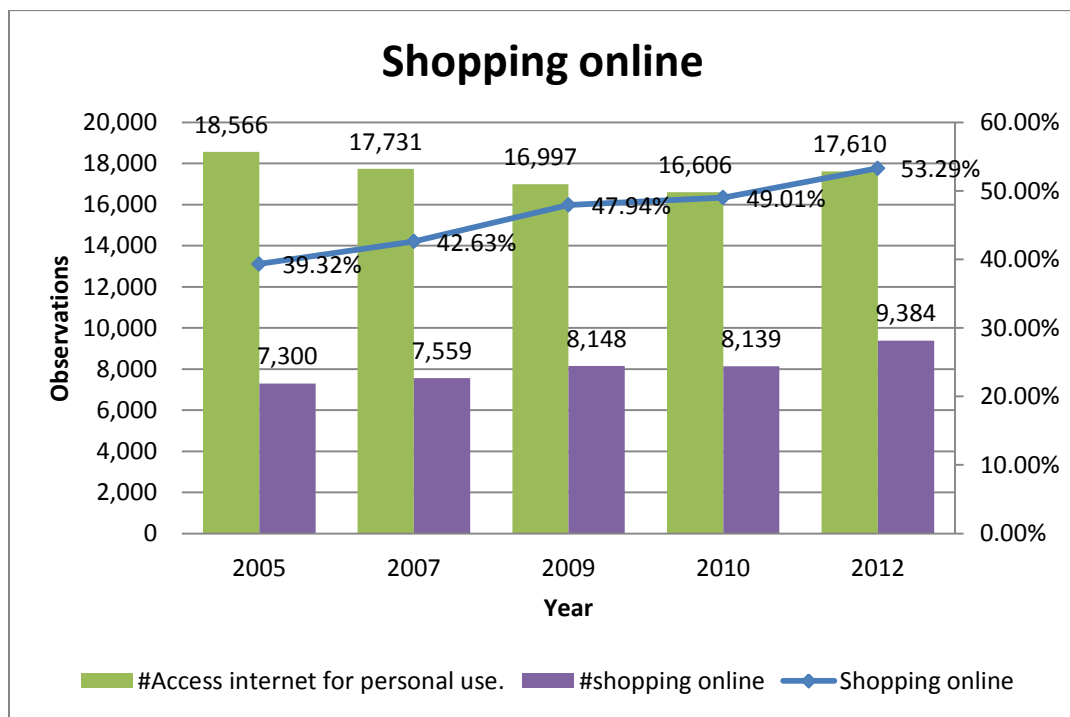
online shopping, which is the key contribution of our study. To our knowledge, few previous studies explored this aspect, especially with such a large sample size over many years. With the national survey data from Statistics Canada, we are able to investigate consumer e-commerce behaviours from different backgrounds, which is difficult for previous studies to achieve, and provide a solid result. This paper can be useful for small and medium enterprises (SMEs) in two aspects. First, they can determine their main sales channels based on our findings regarding the popularity of categories. Second, being familiar with the profile of consumers, they can develop their advertising strategies. With such knowledge, they can also create marketing segmentations and effectively target their potential consumers.

Our analysis unit is the individual consumer, and the dependent variable is whether the consumer has purchased goods online. By analyzing the dependent variable, we can identify the factors that distinguish Internet buyers from Internet users and distinguish specific item buyers from other category buyers. Our independent variables can be divided into two general categories: demographic factors such as gender, age, education, and income; and Internet-related factors such as perceived Internet security concern and accessing devices.

Before we discuss Canadian e-commerce behaviour, it is useful to describe the circumstances of e-commerce. Canada has experienced a growth in Internet usage and, in turn, e-commerce over the past 10 years, as supported by the data used in this study. Figure 1 demonstrates a continuous increase over time in the proportion of online shoppers among survey respondents who use the Internet. The proportion rose from 39.32% in 2005 to 53.29% in 2012. Figure 2 is from OECD Internet Economy Outlook 2012 (Peña-López, 2012) and demonstrates the

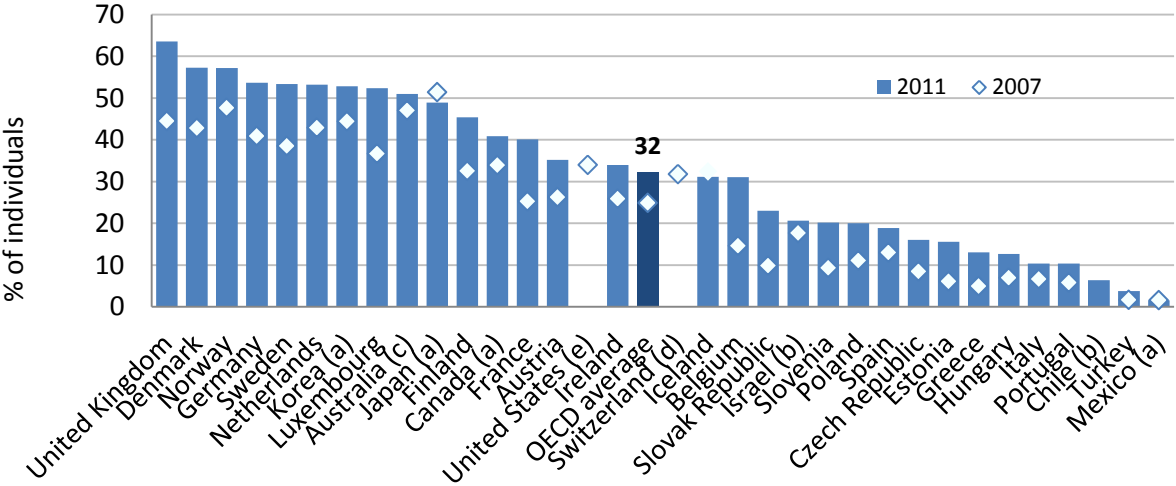
percentage of individuals in OECD countries purchasing online in 2007 and 2011 (or the latest year). In Figure 2, we can see that online shopping was quite popular in the United Kingdom, with more than 60% of persons surveyed ordering products or services on the Internet. Canada ranked 12<sup>th</sup> among OECD countries and the same percentage was about 40%, which was higher than the average.

**Figure 1.** Statistics of E-commerce in Canada



Source: Statistics Canada

**Figure 1.** Individuals who ordered or purchased goods or services on the Internet, 2011 or latest year available<sup>1</sup>



Source: OECD Internet Economy Outlook 2012

**1.1 Research Contributions**

Several studies examine the factors that drive e-commerce for different categories. Books are identified as the most popular item among online shopping categories (Foucault and Scheufele, 2002; Gefen, Karahanna, and Straub, 2003; Liu and Wei, 2003). Groceries and travel services are also discussed in several manuscripts (Athiyaman, 2002; Hansen, Møller Jensen, and Stubbe Solgaard, 2004; Henderson and Divett, 2003). To our knowledge, only one manuscript (Kwak, Fox, and Zinkhan, 2002) has detected the effects of factors on nine different categories of purchases. The categories are the following: books, information or magazines; communications services; computer-related products and services; electronics; entertainment; internet-related products and services; music and videos; and travel and vacations. Another manuscript (Gar n Mu ñoz and Perez Amaral, 2009) detects 12 categories.

<sup>1</sup> a. 2010; b. 2009; c. 2008; d. 2005; e.2003

The categories are following: travel, entertainment, books and newspapers, electronics, software, clothing, computers, home apparel, videos and music, food, financial products and lotteries.

However, the datasets used in prior studies have some limitations. The sample tends to be small and participant backgrounds are not diverse enough. Most survey participants are from the same socio-economic group, so they do not reflect the attitudes of consumers from different backgrounds towards e-commerce. In a study by Foucault and Scheufele (2002), the sample size is 156, all college students. In a Gefen, Karahanna, and Straub (2003) study, the respondents are 213 students. The same limitation also exists in Liu and Wei (2003) and Athiyaman (2002) studies. In contrast, the data in our study are collected by Statistics Canada through a national survey. The data represent a wide cross section of Canadians' attitudes towards e-commerce. In a Hansen, Møller Jensen, and Stubbe Solgaard (2004) study, the sample size is 2260; however, the study only discusses one product—groceries. Our study in contrast, considers 15 product categories. As to each product's share of consumer expenditure, we compare the confidence intervals of predicted probability of purchasing each category online to describe the dominance of one category over another. This approach is more convincing than simply comparing product probability. We also consider the impact of accessing device, updated for current e-commerce situations. Nowadays, with the popularity of mobile devices and development of mobile Internet technology, the accessing device is not limited to a PC. It is necessary to explore device effects on e-commerce.

## **1.2 Organization of Thesis**

The rest of this thesis is organized as follows: in Chapter 2, we review some previous research regarding ecommerce and summarize the factors that affect individual decision making. In Chapter 3, we demonstrate the general information of data collected in the surveys. In Chapter 4, we present the simple theoretical model we use and hypotheses we intend to test. As well, we introduce procedures of the adopted empirical model and emphasize some technical notes. In Chapter 5, we discuss the results from hypotheses tests and attempt to explain them. In Chapter 6, we conclude with the contributions of our study and insight takeaways for academia and business. Opportunities for future study are also described in this chapter.

## **Chapter 2**

### **Literature Review**

E-commerce is a popular area for research. Recent studies have been interested in demographic information such as age, gender, and income effects on e-commerce. They attempted to divide consumers into several segments in order to develop a better marketing strategy. Other studies concentrated more on the differences between PC and mobile access and their effect on purchase choice: to explain the differences between e-commerce and m-commerce. Other research discussed product characteristics and suitability for the Internet environment, attempting to demonstrate the heterogeneity among different categories in e-commerce.

#### **2.1 Online Buying in General**

Bellman, Lohse, and Johnson (1999) conducted a study based on data from the Wharton Virtual Test Market. A survey of 10,180 participants collected demographic data as well as data about online behavior and attitudes towards Internet communication and privacy issues. The research analyzed the factors that predicted actual purchases by using logistic regression. The higher a respondent's income, education and age, the more likely they were to buy online. Security and privacy issues are also important for respondents when purchasing online. In terms of a predictor for online purchasing: searching for product information on the Internet was the most important.

Bhatnagar, Misra, and Rao (2000) investigated e-commerce purchasing with data from Georgia Institute of Technology's Graphics Visualization and Usability Center. Logistic analysis provided some interesting results. The likelihood of purchasing on the Internet

decreases with financial risk and the likelihood varies across product categories. The likelihood of purchasing on the Internet does not decrease with age (up to a certain age). The likelihood of purchasing on the Internet for product categories such as hardware, software, and electronics is higher for men, and the likelihood of purchasing on the Internet for product categories such as food, beverages, and clothing is higher for women.

Bhatnagar and Ghose (2004) developed an analytical model to examine the role that perceived benefits and risks of e-commerce play in forming consumer preferences for e-commerce. The survey data were collected nationally online. They segmented the sample based on consumer sensitivity to the benefits and risks and created a profile based on consumer demographic information. They found that consumer perceived product risks declines with the age and Internet experience of the consumer and that perceived security risks decline as education level increases (partially supported by the paper).

Kwak et al. (2002) present an empirical study based on survey data of 307 Internet users. They applied logistic regression to explore the influence of consumer personalities, attitudes, Internet experience and demographic information on the likelihood to engage in e-commerce. In demographics, they found that men are more likely to engage in e-commerce, that income is positively related to internet purchasing, but that age and education are weak influences.

Pavlou (2003) applied the technology of acceptance model to explain the relationship between perceived risk by consumers and actual purchase. In the study, the author believed that the intention to purchase online is positively related with the actual purchase. Simultaneously, perceived risk is negatively related with the intention of purchasing online.



Here, the perceived risks include economic risk, personal risk, seller performance risk and privacy risk.

Garín Muñoz and Perez Amaral (2009) used logistic regression analysis to investigate different online shopping behaviours across 12 categories. Some products and/or services are more popular among women. The probability of purchase increases with age up to a certain point in most categories. Education has a significant positive effect on the probability of making purchases online. Computer skill is also positively related with the probability of purchasing online. Those effects vary by category. As in Vijayasarathy (2002)'s study, consumer intentions differ by product type. In that study, the author introduced the theory of reasoned action (TRA) to describe the relationship between intention to purchase online and other factors under consideration.

## **2.2 Online Buying by Device**

Ozok and Wei (2010) compared consumer usability preferences in e-commerce for stationary and mobile devices. The authors introduced four validated factors: general human factors, product-related factors, general convenience factors, and consumer service-related issues. They invited 118 college students to complete the survey. Using ANOVA analysis, they found that mobile commerce cannot replace classic electronic commerce. In other words, mobile commerce should be a shopping medium complementary to classic electronic commerce. Even the feature of “shopping from anywhere at any time” was not perceived as superior for m-commerce.

Laukkanen (2007) applied a means-end approach and laddering interviewing<sup>2</sup> technique to reveal how value-creating factors are hierarchically structured and related to each other. In the paper, the author attributes the differences between Internet and mobile banking to efficiency, convenience, and safety. Perceived security issues in mobile transactions are not viewed as a major obstacle. Most respondents were not worried about data security or other security issues; instead, they worried about their own mistakes while using the service.

Raphaeli, Fink, Berman, and Goldstein (2014) used an interactive web usage mining approach<sup>3</sup> to investigate different browsing behaviours in m-commerce and e-commerce. The analysis revealed typical m-commerce and e-commerce browsing behaviours, in terms of session timing and intensity of use and in terms of session navigation patterns. The authors found that mobile users are more “search” oriented compared to PC users. Moreover, PC users were found to have a more efficient browsing behaviour while mobile users were more likely to apply search browsing elements during the purchasing process.

Barwise (2001) argues that the various new Internet-accessing media will continue to be distinguishable from each other despite digital convergence. The author discusses three types of devices used to engage in e-commerce: interactive digital TV (iDTV), PCs, and mobile devices. Among them, PCs were used to purchase both low price and high price goods online. Neither iDTVs nor mobile devices were used to purchase high price products. However, both have their particular strength. iDTV is well suited to impulse purchases of entertainment

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<sup>2</sup> means-end chain approach is a theory about how such relations are arranged in the minds of consumers, the laddering interview is a method for investigating actual instances of such ‘mental relations’.

<sup>3</sup> Web usage mining is a kind of data mining method that can be useful in recommending the web usage patterns with the help of users’ session and behavior

related products. Mobile devices are especially suited to buying time-critical and locational items such as tickets.

Kannan, Chang, and Whinston (2001) do not believe that wireless commerce is equivalent to e-commerce. Wireless technology has unique characteristics that distinguish it from e-commerce. The authors state that wireless commerce can be a good complement to e-commerce. Wireless technology's key characteristic can be summarized as ubiquitous interactivity, which plays an important role in shaping consumer impulse purchase behaviour. Wireless devices are also well suited to dynamic transactions such as stock trades.

Tiwari, Buse, and Herstatt (2008) demonstrated characteristics and features of m-commerce. The authors defined e-commerce and m-commerce and briefly compared those two types of Internet commerce. They define e-commerce as buying and selling of products and services over the Web. M-commerce is referred to mobile e-commerce. Because its transactions are basically electronic transactions conducted using a mobile terminal and a wireless network. They claimed that many of the services offered by the stationary Internet are available on mobile devices. Moreover, mobile devices can offer location-based services (LBS) that traditional PCs cannot offer. Several unique features of mobile devices, such as ubiquity, immediacy, localisation, instant connectivity, pro-active functionality, and a simple authentication procedure, are also demonstrated in the study. Thus, the authors believe that m-commerce will bring significant business opportunities to companies.

**Table 1** Summary of literature review (online shopping in general)

Study	Sample	Method	Result
Bellman, Lohse, & Johnson (1999)	10,180 participants from Wharton Virtual Test Market	logistic regression	The higher a person's income, education and age, the more likely that person will buy online. Security and privacy issues are important issues to WVTM(Wharton Virtual Test Market)
Bhatnagar, Misra, & Rao (2000)	Georgia Institute of Technology's Graphics Visualization and Usability Center	logistic regression	The likelihood of purchasing on the Internet decreases with financial risk and varies across product categories. The likelihood of purchasing on the Internet does not decrease with age (up to a certain age). The likelihood of purchasing on the Internet for product categories such as hardware, software, and electronics is higher for men, and the likelihood of purchasing on the Internet for product categories such as food, beverages, and clothing is higher for women.
Kwak et al. (2002)	307 internet users	logistic regression	In demographics, they found that men are more likely to purchase online, income is positively related with Internet purchasing, but age and education are weak influencers.
Vijayarathy (2002)	2200 respondents from mall survey	Theory of Reasoned Action	Consumer intentions differ by product type.
Pavlou (2003)	155 online consumers	Technology acceptance model	Perceived risk is negatively related with intention of transaction online.

**Table 1 (cont'd)** Summary of literature review

Study	Sample	Method	Result
Bhatnagar & Ghose (2004)	4-week survey on Internet related newsgroups	analytical segment model	Perceived product risk by consumer declines with the age and Internet experience of consumer and perceived security risks decline with education level increasing (partially supported).
Garín Muñoz & Perez Amaral (2009)	8837 Internet users in Spain	logistic regression	Some products or services are more popular among women and some, among men. The probability of purchase increases with age up to a certain point in most categories. Education has a significantly positive effect on probability of purchases online.

**Table 1b** Summary of literature review (online shopping by device)

Study	Sample	Method	Result
Kannan, Chang, & Whinston (2001)	\	framework	Wireless commerce is not equal to Internet based e-commerce. According to the key characteristic of mobile devices, including ubiquitous interactivity, mobile devices are well suited to impulse purchases and dynamic transactions

**Table 1b** Summary of literature review (online shopping by device)

Study	Sample	Method	Result
Barwise (2001)	560 experts in online channels development area	survey interview	Each considered accessing-Internet media will still be distinguishable in the future. PCs are still the main device used for online shopping. iDTVs are well suited to entertainment-related product online purchases. Mobiles are well suited to buying time-critical and locational items
Laukkanen (2007)	20 respondents from a bank survey	means-end approach and laddering interviewing technique	Perceived security issues in mobile transactions are not viewed as a major obstacle.
Tiwari, Buse, & Herstatt (2008)	na	framework	M-commerce can provide not only traditional e-commerce services but also location-based services. Mobile devices have unique features such as ubiquity, immediacy, localization, instant connectivity, pro-active functionality, and a simple authentication procedure
Ozok & Wei (2010)	118 college students	ANOVA	Mobile commerce should be a shopping medium complementary to classic e-commerce.
Raphaeli, Fink, Berman, & Goldstein (2014)	log file from a large internet retailer	interactive web usage mining approach	Consumers exhibit different browsing behaviors by using mobile devices and PCs for e-commerce.

## Chapter 3

### Data

The data used in our study is from a country-wide instrument, the Canadian Internet Use Survey, which has been conducted by Statistics Canada since 2005. Both household Internet access and individual shopping behaviour are measured in this biennial hybrid survey (Statistics Canada, 2013). Thus, the survey data are useful for researchers to understand the online shopping behaviour of Canadians and are valuable for policy makers to assess Internet development, which is an important component of information technology innovativeness. The 2010 survey was redesigned and is incompatible with previous surveys and the 2012 survey. Thus we chose surveys from 2005, 2007, 2009 and 2012. For each dataset, we divide the age, education and income data into several ranges that are consistent with the question options. Then we transform descriptive values into binary ones, assigning 1 to “yes” and 0 to “no”. For the income variable, the three ranges of low, medium and high represent annual household income less than \$25,000, from \$38,000 to \$65,000, and over \$86,000, respectively. As to the safety variable, we consider online banking transactions and online credit card use. We treat “very concerned” and “concerned” as “1” i.e. those consumers who are worried about Internet security. We then sum those two variable values and standardize the aggregation with a mean of 0 and standard deviation of 1 to obtain the safety variable. Finally, we drop observations that contain missing values in the “Buy online” variable. After deleting irrelevant variables in the dataset, we combine the four years of data to produce a

cross-sectional data set, with a year variable included to indicate when the survey was conducted.<sup>4</sup>

**Table 2** Variable description

Dependent variable	1 If purchase; 0 otherwise
Independent variables	Explanation
AGE25_34	1 If respondent in this age range; 0 otherwise
AGE35_44	1 If respondent in this age range; 0 otherwise
AGE45_54	1 If respondent in this age range; 0 otherwise
AGE55_64	1 If respondent in this age range; 0 otherwise
COLLEGE	1 If respondent has college degree; 0 otherwise
UNIVERSITY	1 If respondent has university degree; 0 otherwise
FEMALE	1 If respondent is a female; 0 Male
Low-Income	1 If household annual income is less than \$25,000; 0 otherwise
Medium-Income	1 If household annual income is between \$38,000 and \$65,000; 0 otherwise
High-Income	1 If household annual income is over \$86,000; 0 otherwise
Mobile	1 if respondent uses mobile devices to access internet; 0 otherwise
PC	1 if respondent uses PC to access internet; 0 otherwise
Safety	Concern about online banking transaction; concern about online credit card usage

**Table 3** Independent variable statistics

2005				2007			
Variable	Obs	Mean	Std. Dev.	Variable	Obs	Mean	Std. Dev.
AGE25_34	6599	0.238066	0.425932	AGE25_34	7083	0.2356346	0.424425
AGE35_44	6599	0.270193	0.444093	AGE35_44	7083	0.2582239	0.437689
AGE45_54	6599	0.212002	0.408757	AGE45_54	7083	0.2086686	0.406386
AGE55_64	6599	0.122897	0.328344	AGE55_64	7083	0.1236764	0.329235
COLLEGE	6599	0.451735	0.497703	COLLEGE	7083	0.4543273	0.497945
UNIVERSITY	6599	0.351417	0.477449	UNIVERSITY	7083	0.3274036	0.469299
FEMALE	6599	0.514623	0.499824	FEMALE	7083	0.5202598	0.499625
Low-Income	6599	0.067435	0.250792	Low-Income	7083	0.0728505	0.259909

<sup>4</sup> Statistics Canada does not release an individual identifier for each household. Furthermore, a large percentage of households are cycled into and out of the survey each time it is conducted. Thus it was not possible to create panel data.



Medium-Income	6599	0.192757	0.394493	Medium-Income	7083	0.1993506	0.39954
High-Income	6599	0.347628	0.476253	High-Income	7083	0.3265565	0.468987
Mobile	6599	0.083801	0.27711	Mobile	7083	0.1551602	0.362083
PC	6599	0.997879	0.046015	PC	7083	0.9974587	0.050351
Safety_	6599	-0.09234	1.07693	Safety_	7083	-0.1049977	1.063583

**Table 3 (cont'd)** Independent variable statistics

2009				2012			
Variable	Obs	Mean	Std. Dev.	Variable	Obs	Mean	Std. Dev.
AGE25_34	7831	0.221555	0.41532	AGE25_34	9039	0.2177232	0.412721
AGE35_44	7831	0.233687	0.423202	AGE35_44	9039	0.2188295	0.413476
AGE45_54	7831	0.212233	0.408915	AGE45_54	9039	0.197367	0.398034
AGE55_64	7831	0.158984	0.365684	AGE55_64	9039	0.1712579	0.376755
COLLEGE	7831	0.45703	0.498182	COLLEGE	9039	0.4509348	0.497614
UNIVERSITY	7831	0.330737	0.470509	UNIVERSITY	9039	0.3304569	0.470404
FEMALE	7831	0.529179	0.49918	FEMALE	9039	0.5437548	0.498109
Low-Income	7831	0.073554	0.26106	Low-Income	9039	0.0833057	0.276359
Medium-Income	7831	0.194994	0.396222	Medium-Income	9039	0.2076557	0.405651
High-Income	7831	0.338399	0.473195	High-Income	9039	0.3034628	0.459779
Mobile	7831	0.271868	0.444951	Mobile	9039	0.6880186	0.463328
PC	7831	0.995914	0.063798	PC	9039	0.987388	0.111599
Safety_	7831	-0.06457	1.035147	Safety_	9039	-0.0946224	1.051065

**Table 4** Dependent variable statistics

2005				2007			
Variable	Obs	Mean	Std. Dev.	Variable	Obs	Mean	Std. Dev.
Software	6599	0.212608	0.4091836	Software	7083	0.2048567	0.4036254
Hardware	6599	0.1201697	0.3251845	Hardware	7083	0.1255118	0.3313217
Music	6599	0.1671465	0.3731349	Music	7083	0.207398	0.4054717
Books	6599	0.3571753	0.4792034	Books	7083	0.3667937	0.4819636
Video	6599	0.1357781	0.3425788	Video	7083	0.1464069	0.3535386
Tickets	6599	0.2350356	0.4240532	Tickets	7083	0.3072145	0.4613716
Health & beauty	6599	0.0775875	0.2675417	Health & beauty	7083	0.0948751	0.293063
Clothes & jewelry	6599	0.278527	0.4483081	Clothes & jewelry	7083	0.3139912	0.4641456
Housewares	6599	0.1031975	0.3042397	Housewares	7083	0.1214175	0.3266349

Electronics	6599	0.1666919	0.3727288	Electronics	7083	0.1890442	0.3915714
Auto products	6599	0.0628883	0.2427804	Auto products	7083	0.0823098	0.2748555
Travel	6599	0.3691468	0.4826103	Travel	7083	0.4447268	0.4969706
Flowers	6599	0.1201697	0.3251845	Flowers	7083	0.1513483	0.3584133
Sport Equip	6599	0.0787998	0.2694465	Sport Equip	7083	0.0921926	0.289318
Toys & games	6599	0.1330505	0.339655	Toys & games	7083	0.1627841	0.3691947

**Table 4 (cont'd)** Dependent variable statistics

		2009				2012	
Variable	Obs	Mean	Std. Dev.	Variable	Obs	Mean	Std. Dev.
Software	7831	0.214532	0.4105235	Software	9044	0.2222468	0.4157791
Hardware	7831	0.1234836	0.3290125	Hardware	9039	0.1278903	0.333986
Music	7831	0.2532244	0.4348861	Music	9044	0.3212074	0.4669661
Books	7831	0.3769634	0.4846566	Books	9044	0.4166298	0.4930277
Video	7831	0.1587281	0.3654457	Video	9044	0.1957099	0.3967681
Tickets	7831	0.378368	0.485011	Tickets	9044	0.4778859	0.4995383
Health & beauty	7831	0.1199081	0.3248747	Health & beauty	9039	0.1443744	0.3514884
Clothes & jewelry	7831	0.3460605	0.4757431	Clothes & jewelry	9039	0.4295829	0.495044
Housewares	7831	0.1269314	0.3329174	Housewares	9039	0.1250138	0.3307529
Electronics	7831	0.2016345	0.4012463	Electronics	9039	0.1874101	0.390262
Auto products	7831	0.0911761	0.2878777	Auto products	9039	0.1068702	0.3089653
Travel	7831	0.5047887	0.500009	Travel	9039	0.5752849	0.494327
Flowers	7831	0.1822245	0.3860541	Flowers	9039	0.1070915	0.3092466
Sport Equip	7831	0.1024135	0.3032107	Sport Equip	9039	0.1133975	0.3170956
Toys & games	7831	0.1972928	0.3979806	Toys & games	9039	0.2085408	0.4062878

Table 3 and Table 4 summarize the variables used in this study. We report the mean, standard deviation, and number of observations. The independent variables we consider are listed in Table 3. We focus on individuals aged 25-64. Around 55% of respondents are female. With respect to educational attainment, we show that approximately 47% of respondents have a college education and about 24% of individuals have a university degree. Regarding income level, around 14% of respondents are low-income; almost 22% are medium income; and

about 23% are high-income. Almost all respondents use PCs to access the Internet with slight difference across years. The percentage of individuals who use mobile devices to access the Internet ranges from 5% in 2005 to 57% in 2012. Table 4 demonstrates purchase probability across 15 product categories. Over half of the respondents wanted to buy travel services online in 2012 (travel is the most popular category). The second most popular category is entertainment tickets. Around 47% of individuals purchased tickets online in 2012. Generally, most of the categories experienced an increase from 2005 to 2012.

## **Chapter 4**

### **Theoretical and Empirical Model**

In this chapter, we present our hypotheses and empirical model. Through multiple Probit regressions over 15 categories, we attempt to determine behaviour dissimilarities between categories and devices. Elasticity is a tool for measuring the responsiveness of one variable to changes in another, causative variable. By calculating the elasticity of each independent variable, we can identify its marginal effect on the purchase probability. The Wald test is commonly used to test two coefficients' equality after a regression. Using the Wald test, we can confirm whether there is a significant difference between our variables. After that, we also plot graphs of the predicted purchasing probability of different categories to indicate which one is purchased most by e-commerce consumers.

#### **4.1 Theoretical Model**

Our study aims to examine the factors that influence the probability of engaging in e-commerce. We take some variables into account that are supposed to affect the probability.

Our simple theoretical model is expressed as follows:

$$\text{Prob}(\text{purchase})=F(\text{other factors}) \tag{1}$$

Considered factors refer to the two broad categories of factors: demographic factors and Internet-related factors.

## 4.2 Hypotheses

### *Hypothesis 1*

*The choice of a mobile device over a PC increases the probability of engaging in e-commerce.*

As a medium for accessing the Internet, each type of device presents important factors affecting the probability of the user engaging in e-commerce. With the rapid growth of adoption of mobile devices, they play an important role in digital life. Twenty years ago, people had no choice but to use desktop computers to access the Internet and browse information. The development of mobile technology has resulted in devices with similar functions as those in PCs in some aspects, especially Internet features. Compared with PCs, the most obvious advantage of mobile devices is ubiquity. Mobile devices offer users the convenience and ability to receive information and perform transactions from virtually anywhere in real time (Clarke, 2001). Some previous research stated that the rapid expansion of mobile devices such as mobile phones, personal digital assistants (PDAs), and tablets was a major driving force for the next wave of e-commerce (Liang and Wei, 2004).

### *Hypothesis 2*

*Perceived risks are negatively related to engagement in e-commerce.*

A large amount of research regarding e-commerce has indicated that perceived risk is negatively associated with online shopping. In our study, we classify concern about online banking transactions and online credit card usage as perceived financial risk. Financial risk is

defined as the possibility of financial loss, which is viewed as the main issue in e-commerce. Unlike shopping in a physical retail setting where consumers can pay with cash or cheque, Internet shoppers must pay through online banking, which may cause monetary and/or private data loss during a transaction. Previous research stated that the likelihood of purchasing on the Internet decreases with financial risk (Bhatnagar et al., 2000), and this negative influence exists for both experienced and novice Internet buyers who purchase products and services (De Ruyter, Wetzels, and Kleijnen, 2001; Liang and Wei, 2004).

### *Hypothesis 3*

*Mobile device users have a higher probability of engaging e-commerce.*

We presume that users of mobile devices are more inclined to engage in e-commerce. It may be concluded that persons who used mobile device to access the Internet ten years ago were relatively receptive to new technology. If e-commerce is viewed as an innovative sales channel based on new technology, mobile device users may be more inclined to embrace it. Innovativeness is a measure of how fast and to what extent an individual adopts new innovations (Rogers, 2010). Studies have indicated that innovativeness is found to be positively related to actual online shopping purchases (Goldsmith, 2002). Connecting those two findings, we believe that mobile device users are more likely to accept e-commerce and engage in e-commerce.

#### *Hypothesis 4*

*Demographic factors are related to the likelihood of engaging in e-commerce.*

Demographic factors are appropriate tools to segment consumers in marketing research. In previous studies, demographic information is viewed as essential data to analyze consumer behaviours with e-commerce. In our study, we note gender, age, income, and education, which appear frequently in e-commerce research. In one study, the results indicated that both gender and income have significant effect on the probability of an individual engaging in e-commerce, while age and education level are weakly associated with that likelihood (Kwak et al., 2002). Other research suggested that all the mentioned demographic factors are significantly related to the odds of engaging in e-commerce, and the purchase probability is increasing with age up to a certain point, and then decreasing (Gar n Mu n o z and Perez Amaral, 2009). Since mixed effects are associated with demographic factors, we claim that demographic information is relevant to the probability of engaging in e-commerce.

#### *Hypothesis 5*

*PCs raise more security concerns than mobile devices do.*

We believe that the use of PCs to engage in e-commerce raises more security concerns than the use of mobile devices, despite debate on the issue both in academia and industry. The security concern in our study is associated with online banking and credit card usage. In previous research, a mobile Internet transaction is viewed as less secure than a PC internet transaction (Laukkanen, 2007). Some studies have argued that security issues are not

perceived by consumers to be major barriers in banking transactions (Laukkanen and Lauronen, 2005; Suoranta, 2003). These studies state that users found mobile banking to be a secure way to conduct banking transactions. Most survey respondents do not worry about data security or other security issues. However, they are concerned about making mistakes when conducting mobile transactions. Daffern (Pete Daffern, 2012) claimed that accessing an account via the bank's mobile website or using the bank's mobile app is as secure, if not more secure, than banking online via a PC. Mobile users feel secure because they always know where their cellphones are. The author also used the studies by Morgan Stanley which have shown that about 91% of people have their cellphones within arm's reach. Mobile users can learn of fraudulent transactions immediately through short message service (SMS), which cannot be achieved via PC online banking.

### **4.3 Empirical Model**

To explore the effects of different factors, we adopt Probit regression as our model because of its properties. The Probit regression model is a type of regression model in which the dependent variable is binary (1 or 0). It is an appropriate model to test qualitative variables such as married or not married. This model, which employs a Probit link function, is estimated by using the standard maximum likelihood procedure.

According to Woolridge (Wooldridge, 2010), there is a latent variable that determines the true value  $y$ . Here, the true value  $y$  is our binary observation. Suppose that the true value of observation is given by an unobserved latent variable  $z$



$$z = \beta_0 + \sum_i \beta_i x_i + \varepsilon \quad (2)$$

where  $x_i$  is the independent variable and  $\varepsilon$  is the error term following normal distribution.

Instead of directly observing this value, we see only a binary choice  $y$  that is equal to 1 if  $z$  is positive and 0 if  $z$  is negative. In other words, when  $z$  is high enough taking some action is prudent and expected behaviour, and all we see is whether the agent took action or not.

$$y = 1 \text{ if } z > 0 \quad (3)$$

$$y = 0 \text{ otherwise}$$

From Function (2), we can rewrite our function as follows:

$$\begin{aligned} Prob(z > 0) &= Prob(\beta_0 + \sum_i \beta_i x_i + \varepsilon > 0) \quad (4) \\ &= Prob(\varepsilon > -\beta_0 - \sum_i \beta_i x_i) = \Phi(\beta_0 + \sum_i \beta_i x_i) \end{aligned}$$

The marginal effect on probability with a change of  $x_k$  is given as follows:

$$\frac{\partial Prob}{\partial x_k} = \varphi(\beta_0 + \sum_i \beta_i x_i) \beta_k \quad (5)$$

From the equation, we find that the effect of changes in a variable  $x_i$  on the likelihood of a particular individual choosing option will depend not only on  $\beta_i$  but also  $\varphi(\beta_0 + X_k \beta)$  (Nagler, 1994).

We use software product as an example.

$$y = \beta_0 + \sum_i \beta_i x_i + \varepsilon \quad (6)$$

$y=1$  if a respondent purchased software online; 0 if not

$x_1=1$  if a respondent in age of 25-34; 0 if not

$x_2=1$  if a respondent in age of 35-44; 0 if not

$x_3=1$  if a respondent in age of 45-54; 0 if not

$x_4=1$  if a respondent in age of 55-64; 0 if not

$x_5=1$  if a respondent has college degree; 0 if not

$x_6=1$  if a respondent has university degree; 0 if not

$x_7=1$  if a respondent is a female; 0 if not

$x_8=1$  if a respondent's annual income is less than \$25,000; 0 if not

$x_9=1$  if a respondent's annual income is between \$38,000 and \$65,000; 0 if not

$x_{10}=1$  if a respondent's annual income is less than \$86,000; 0 if not

$x_{11}=1$  if a respondent uses mobile devices to access the internet; 0 if not

$x_{12}=1$  if a respondent uses PC to access the internet; 0 if not

$x_{13}$  safety variable aggregated by online banking concern and online credit card usage concern.

$\varepsilon$  error term, normal distributed

By using Probit regression, we can estimate the coefficients of the independent variables. By identifying the signs of the coefficients, we can obtain the information about whether the certain variable is positively related to the possibility of engaging in e-commerce or not. Furthermore, we calculate the elasticity of each variable. With elasticity, we can know how the probability of  $y=1$  increases with a 1-unit increase in  $x$ .

#### **4.3.1 Gender**

Generally, women are more favourable about shopping. Nevertheless, Joines, Scherer, and Scheufele (2003) indicate that men are more inclined to purchase online. In addition, some studies find that men spend more than women on e-commerce (Susskind, 2004). Studies reveal the difference between genders in three aspects. First, men were more convenience-oriented and less motivated by social interaction, which is the weakness of e-commerce (Swaminathan, Lepkowska-White, and Rao, 1999) . Compared with men, women were reported to be more web apprehensive (Susskind, 2004). In other words, women were more concerned about e-commerce security than men were (Rodgers and Harris, 2003). Second, the difference is attributed to product types. In the early period of e-commerce, products such as hardware, software and so on were popular with men (Van Slyke, Comunale, and Belanger, 2002). The third reason is different product evaluation methods. Men illustrate a weaker need for tactile input to judge product quality than women do (Citrin, Stem Jr, Spangenberg, and Clark, 2003).

#### **4.3.2 Age**

Some evidence explains the negative relationship between consumer intention to purchase online and age (Joines et al., 2003; Koyuncu and Lien, 2003). However, other studies claim

that the older the consumer, the higher the likelihood of engaging in ec-commerce (Stafford, Turan, and Raisinghani, 2004). The difference probably resulted from the different age groups dealt with in their studies. For instance, some used a 5-year span while others used a 10-year span.

#### **4.3.3 Income and Education**

Some studies identified the positive relation between income and education level. Consumers with higher education levels were more willing to engage in e-commerce (Burke, 2002). (Lohse, Bellman, and Johnson, 2000) find a positive correlation between household income and the probability of engaging in e-commerce.

#### **4.3.4 Devices**

Previous studies reveal the promotion of e-commerce for mobile devices. The rapid expansion of mobile devices such as mobile phones, personal digital assistants (PDAs), and tablets is a major driving force for the next wave of electronic commerce (Liang and Wei, 2004). Consumers with smartphones or tablets can complete financial transactions anywhere, whereas consumers with PCs cannot (Ian Mills, 2014). Accessibility is the key factor of e-commerce through mobile phones. Consumers can even compare prices during the process of shopping in a physical store. And without location restrictions of accessing the internet, smartphones can lead to more impulse purchasing (comScore, 2012). However, some research also presented the limitations of mobile devices in e-commerce. Different from desktop PCs and laptops, mobile devices have smaller screens and limited display, making it difficult to browse more than limited information on one page (Lee and Benbasat, 2003; Tarasewich, Nickerson, and Warkentin, 2002). Switching to a larger screen consumes extra

battery life. Without traditional keyboards, handheld devices are not consumer friendly inputting devices, which restrict their interactive capabilities (Tarasewich et al., 2002). Some reports point out that PCs are still the preference for the actual purchase while mobile phones and tablets are more likely to be preferred for browsing (comScore, 2012)

#### **4.3.5 Perceived Risk**

E-commerce is concerned not only with accessibility but also security. The security concern of consumers is a research factor that is viewed as a major barrier preventing further development. Perceived risk can be classified into nine dimensions. 1. Perceived financial risk is defined as the possibility of financial loss while shopping online (Jacoby and Kaplan, 1972; Roselius, 1971). 2. Perceived performance risk is associated with a product that does not function properly (Jacoby and Kaplan, 1972; Simpson and Lakner, 1993). 3. Perceived social risk involves others' perception of an individual's behaviour (Jacoby and Kaplan, 1972). 4. Perceived psychological risk is the likelihood of suffering mental stress from shopping behaviour (Jacoby and Kaplan, 1972). 5. Perceived physical risk is the chance of a product being harmful to health (Jacoby and Kaplan, 1972). 6. Perceived time-loss risk results from the time consumed while engaged in e-commerce (Roselius, 1971). 7. Perceived personal risk is the possibility of personal information being stolen (Jarvenpaa and Todd, 1996). 8. Perceived privacy risk is the concern about individual shopping habits being exposed to others (Jarvenpaa and Todd, 1996; Nyshadham, 2000). 9. Perceived source risk is the concern that the products are not worth buying (McCorkle, 1990). Those nine types of perceived risks are from the following four sources. 1. Perceived risk results from technology that is involved with downloading delays, search issues limitations in the interface and so on

(Rose, Khoo, and Straub, 1999). 2. Risk is related to the retailers. As a consequence of anonymity on the Internet, consumers may be misled by vendors (Stewart, 1999). 3. The source of perceived risk is consumers whose shopping behaviours are influenced by family and friends. Consequently, social pressure is another source of perceived risk (Sambamurthy and Zmud, 1999; Venkatesh and Davis, 2000). 4. Products can also be the origin of perceived risk. Some products' qualities are detected mainly by touch and feel (Raijas, 2002). Without any physical contact, consumers will be more uncertain about some products. Some studies have pointed out that perceived risk has demonstrated a reduction in consumer e-commerce intentions (Pavlou, 2003). Such a negative influence exists for both experienced and novice Internet buyers' purchasing decisions for products and services (De Ruyter et al., 2001; Liang and Wei, 2004)

#### **4.3.6 Product Characteristics**

Consumer's decisions whether to buy or not are affected by the products' characteristics. The different popularities of products can be attributed to the special Internet properties lacking physical contact. Without touch, feel or smell, it is difficult for consumers to buy products such as cars, clothes and perfumes (Elliot and Fowell, 2000). On the other hand, standardized products such as CDs, books and software are well suited to e-commerce (Monsuwé Dellaert, and De Ruyter, 2004). Other studies have found that travel and entertainment tickets are the most popular e-commerce products. One possible explanation is that they are less risky for consumers to buy. Considering these products' intangibility, consumers do not need to be anxious about delivery risk, which is very common for tangible goods. In addition, the travel industry adopted e-commerce at its very beginning. As a relatively mature market, it is not

surprising that the travel industry is best suited to e-commerce (Garín Muñoz and Perez Amaral, 2009).

### **Estimation Progress**

To deal with the data and conduct the regression analysis, we use STATA as our statistics software, which is useful to manipulate a large amount of data and to produce graphs. Since the Probit function is embedded in the software, we can use it directly. After regression, we can predict the purchasing probability of a specific item by using the predict command. Simultaneously, we output “y\_hat” and standard error by the same command. As long as we obtain all the data, we can calculate the confidence intervals for every estimated probability for later comparisons. The detailed code is demonstrated in Appendix A.

On the other hand, by using the margins command in STATA, the elasticity of each coefficient can be easily calculated to explain the different effects along with independent variables. As the default, STATA calculates the elasticity at the means of independent variables. However, most independent variables are binary, and calculating marginal effect at the mean is inconclusive. Thus, we use the command as follows:

*Margins, dydx(\*) at ( independent variable name=1)*

By setting the specific value, the software can calculate the marginal effect when independent variables are equal to 1. The detailed code is included in Appendix A.

## Chapter 5

### Results and Discussion

In this chapter, we present the results of the five hypotheses and discuss each of them in turn. Before discussion, we list the table which includes the technical details of normality tests on each regression. Thus, we applied Shapiro-Wilk W test to determine whether our data is satisfied with normal distribution or not.

The Shapiro-Wilk test is to check whether a sample  $x_1, \dots, x_n$  came from a normal distribution.

The test statistic is following:

$$W = \frac{(\sum_{i=1}^n a_i x_{(i)})^2}{\sum_{i=1}^n (x_i - \bar{x})^2} \quad (7)$$

where

$x_{(i)}$  is the  $i$ th order statistic, i.e. the  $i$ th smallest number in the sample;

$\bar{x}$  is the sample mean

The constant  $a_i$  is given by

$$(a_1, \dots, a_n) = \frac{m^T V^{-1}}{(m^T V^{-1} V^{-1} m)^{1/2}} \quad (8)$$

$m_1, \dots, m_n$  are the expected values of the order statistics of independent and identically distributed random variables sampled from the standard normal distribution, and  $V$  is the covariance matrix of those order statistics. W test provides an index to evaluate whether the sample follows normal distribution. And the statistics  $\ln(1 - W)$  follows approximately normal distribution. Generally, W statistics satisfies  $0 < W \leq 1$ . For values of W close enough to 1, the normality hypothesis will not be rejected. For smaller W it will be rejected. As our



W statistics is very close to 1, we can conclude that the data we use are following normal distribution.

**Table 5 Normality tests on each regression**

**15 categories (PC, mobile used as independent variables)**

Variable	W	V	z	Prob>z
Software	0.997	37.763	9.98	0
Music	0.9988	15.11	7.462	0
Books	0.99857	18.071	7.954	0
Video	0.99584	52.41	10.88	0
Tickets	0.9989	13.899	7.233	0
Hardware	0.997	37.84	9.985	0
Health & beauty	0.99612	48.918	10.691	0
Clothes & jewelry	0.99869	16.499	7.704	0
Housewares	0.99427	72.19	11.76	0
Electronics	0.99633	46.251	10.537	0
Travel	0.99705	37.146	9.934	0
Sport Equip	0.99435	71.25	11.724	0
Toys & games	0.99081	115.861	13.06	0
Auto products	0.9928	90.786	12.39	0
Flowers	0.99597	50.811	10.795	0

**15 categories (PCXsafety, mobileXsafety used as independent variables)**

Variable	W	V	z	Prob>z
Software	0.99435	71.259	11.725	0
Music	0.99864	17.179	7.815	0
Books	0.99801	25.036	8.85	0
Video	0.99602	50.163	10.76	0
Tickets	0.99869	16.501	7.704	0
Hardware	0.9955	56.717	11.097	0

Health & beauty	0.99595	51.064	10.809	0
Clothes & jewelry	0.99874	15.846	7.593	0
Housewares	0.99453	68.941	11.634	0
Electronics	0.99431	71.701	11.742	0
Travel	0.99732	33.749	9.671	0
Sport Equip	0.99414	73.917	11.825	0
Toys & games	0.98947	132.776	13.435	0
Auto products	0.99297	88.569	12.322	0
Flowers	0.99618	48.22	10.651	0

**15 categories when PC=1**

Variable	W	V	z	Prob>z
Software	0.99622	47.391	10.602	0
Music	0.99859	17.673	7.892	0
Books	0.99681	40.064	10.141	0
Video	0.99762	29.887	9.336	0
Tickets	0.99789	26.437	8.999	0
Hardware	0.99762	29.804	9.328	0
Health & beauty	0.99604	49.717	10.734	0
Clothes & jewelry	0.99742	32.416	9.559	0
Housewares	0.99706	36.848	9.911	0
Electronics	0.99747	31.692	9.497	0
Travel	0.99331	83.897	12.172	0
Sport Equip	0.99762	29.897	9.337	0
Toys & games	0.99829	21.425	8.421	0
Auto products	0.99843	19.763	8.199	0
Flowers	0.99651	43.746	10.383	0

**15 categories when mobile=1**

Variable	W	V	z	Prob>z
Software	0.99634	18.203	7.768	0
Music	0.99707	14.566	7.171	0
Books	0.99655	17.174	7.612	0
Video	0.99509	24.46	8.559	0
Tickets	0.99698	15.041	7.257	0

Hardware	0.9951	24.385	8.55	0
Health & beauty	0.99024	48.585	10.396	0
Clothes & jewelry	0.9983	8.449	5.713	0
Housewares	0.99231	38.281	9.758	0
Electronics	0.99292	35.262	9.538	0
Travel	0.99748	12.528	6.768	0
Sport Equip	0.99532	23.284	8.427	0
Toys & games	0.99527	23.572	8.46	0
Auto products	0.98874	56.073	10.78	0
Flowers	0.9947	26.39	8.762	0

### Hypothesis 1

The choice of a mobile device over a PC increases the probability of engaging in e-commerce. Table 5 illustrates that most of our products and services support the hypothesis. For example, in software category, the factor of using PC to access the internet affects the possibility of purchasing software insignificantly. As to mobile devices, the coefficient in front of it is 0.307 which is positively and significantly impact the possibility of engaging in e-commerce. Having a mobile device can increase the possibility of engaging in e-commerce more than having a PC does. However, there are still some exceptions in our regressions. Items such as books, entertainment tickets, clothes, jewelry products, and toys and games present the opposite result, namely that PCs seem to play a more important role in the purchasing decision than mobile devices do. The contrary results partially reflect the fact that product characteristics and differences affect shopping behavior.

Although several advantages of mobile devices used for e-commerce have been discussed, their disadvantages may not be ignored. With smaller screens, mobile devices cannot display as much information as PCs can. The products which show the opposite regression results are all required careful observation before purchases. Unlike purchasing in a physical store, most

of the information one needs to make a purchase decision online is obtained by browsing. Thus, products for which consumers need more detailed information from the Internet may not suit mobile devices.

**Table 6** Regression result for devices

	Software		Music		Books		Video		Tickets	
	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity
PC	0.157 (0.11)	0.061	0.120 (0.1)	0.041	.228* (0.1)	0.069	0.225 (0.12)	0.067	.342*** (0.1)	0.134
mobile	.307*** (0.02)	0.120	.447*** (0.02)	0.153	.199*** (0.019)	0.060	.264*** (0.021)	0.079	.326*** (0.019)	0.128
Note:			*p<.05;			**p<.01;			***p<.001	

Standard error is in parentheses

\*\*\*p-value less than 0.001, \*\*p-value less than 0.01, \*p-value less than 0.05

**Table 6b** Regression result for devices

Variable	Hardware		Health & beauty		Clothes & jewelry		Housewares		Electronics	
	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity
PC	.286* (0.13)	0.082	0.128 (0.13)	0.042	.345*** (0.1)	0.131	0.125 (0.13)	0.048	0.164 (0.11)	0.052
mobile	.298*** (0.023)	0.086	.187*** (0.024)	0.062	.313*** (0.019)	0.119	.162*** (0.023)	0.062	.335*** (0.021)	0.107
Note:			*p<.05;			**p<.01;			***p<.001	

Standard error is in parentheses

\*\*\*p-value less than 0.001, \*\*p-value less than 0.01, \*p-value less than 0.05

**Table 6c** Regression result for devices

Variable	Travel		Sport equip		Toys & games		Auto products		Flowers	
	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity
PC	.245*	0.040	-0.053	-0.008	.347**	0.129	0.018	0.002	0.239	0.095
	(0.099)		(0.13)		(0.12)		(0.13)		(0.14)	
mobile	.322***	0.053	.18***	0.027	.26***	0.097	.131***	0.014	.188***	0.075
	(0.019)		(0.025)		(0.021)		(0.026)		(0.023)	
		Note:		*p<.05;		**p<.01;		***p<.001		

Standard error is in parentheses

\*\*\*p-value less than 0.001, \*\*p-value less than 0.01, \*p-value less than 0.05

## Hypothesis 2

Perceived risks are negatively related to online shopping.

It has been widely investigated whether or not perceived risk is a barrier to e-commerce development. Table 6 demonstrates that the perceived risk from all categories is negatively associated with e-commerce except for auto products. Nevertheless, since the negative effect on auto products is not statistically significant, it can be ignored. The reduction effect varies by category. Items such as books, music, travel, and apparel are strongly affected by perceived risk. However, products such as housewares and health and beauty products are less impacted by risk, and there is even no significant effect of risk on sports equipment and auto products. Since “risk” in our case is not product risk, we may not summarize the regularity from categories. However, we do find that the financial risks also vary by category and our results are very similar to those of previous research (Bhatnagar et al., 2000).

**Table 7** Regression results for risk

Variable	Software		Music		Books		Videos	
	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity
Safety	-.04*** (0.0078)	-0.016	-.069*** (0.0075)	-0.024	-.059*** (0.0071)	-0.018	-.066*** (0.0081)	-0.02
Note:	*p<.05;		**p<.01;		***p<.001			

Standard error is in parentheses

\*\*\*p-value less than 0.001, \*\*p-value less than 0.01, \*p-value less than 0.05

**Table 7b** Regression results for risk

Variable	Tickets		Hardware		Health & beauty		Clothes & jewelry	
	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity
Safety	-.04*** (0.0072)	-0.015	-.058*** (0.0088)	-0.017	-.024** (0.0092)	-0.008	-.057*** (0.0072)	-0.022
Note:	*p<.05;		**p<.01;		***p<.001			

Standard error is in parentheses

\*\*\*p-value less than 0.001, \*\*p-value less than 0.01, \*p-value less than 0.05



**Table 7c** Regression results for risk

Variable	Housewares		Electronics		Travel		Sports equip	
	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity
Safety	-.021*	-0.0081	-.062***	-0.020	-.052***	-0.0085	-7.20E-03	-0.0011
	(0.0089)		(0.0079)		(0.0071)		(0.0095)	
Note:	*p<.05;		**p<.01;		***p<.001			

Standard error is in parentheses

\*\*\*p-value less than 0.001, \*\*p-value less than 0.01, \*p-value less than 0.05

**Table 7d** Regression results for risk

Variable	Toys&Games		Auto products		Flowers	
	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity
Safety	-.048***	-0.018	0.012	0.0012	-.049***	-0.020
	(0.0081)		(0.01)		(0.0086)	
Note:	*p<.05;		**p<.01;		***p<.001	

Standard error is in parentheses

\*\*\*p-value less than 0.001, \*\*p-value less than 0.01, \*p-value less than 0.05

**Table 8** Predicted probability of two groups

	Predict purchase probability if PC=1	Predict purchase probability if mobile=1	
Variable	Mean	Mean	P-value
Buy online	0.4860108	0.6561938	0.000
Software	0.2024683	0.2581215	0.000
Music	0.2217576	0.3621153	0.000
Books	0.3564088	0.4214491	0.000
Video	0.1517206	0.2129879	0.000
Tickets	0.3262276	0.4852485	0.000
Hardware	0.1172431	0.1581191	0.000
Health & beauty	0.108769	0.1455227	0.000
Clothes & jewellery	0.3351671	0.4501466	0.000
Housewares	0.1139384	0.1383759	0.000
Electronics	0.1767065	0.241572	0.000
Travel	0.4398455	0.5828689	0.000
Sports Equip	0.0899158	0.1262638	0.000
Toys & games	0.1653952	0.2390184	0.000
Auto products	0.0845886	0.1133385	0.000
Flowers	0.1268499	0.1505057	0.000
Note:	*p<.05;	**p<.01;	***p<.001

\*\*\*p-value less than 0.001, \*\*p-value less than 0.01, \*p-value less than 0.05

### Hypothesis 3

Mobile device users have a higher possibility of engaging in e-commerce.

From the results, we find that the possibility of engaging in e-commerce is higher across all categories for users of mobile devices than for users of PCs. Although there is no evidence showing that mobile device users are more innovative than PC users, our finding may imply that the assumption is true to some extent. Consumers who use mobile devices to access the Internet can be treated as more innovative. Innovativeness is defined as how fast and to what extent an individual adopts new innovations (Rogers, 2010). Compared to PC Internet

connectivity, the mobile Internet was new to people 10 years ago. Innovativeness was found to be positively related to actual online shopping behaviour (Goldsmith, 2002). That may be one explanation that mobile users are found to be more inclined to engage in e-commerce.

#### Hypothesis 4

Demographic factors are related to the likelihood of engaging in e-commerce.

All of the categories we explored support the hypothesis and the effects vary by category. Generally, men are more likely to engage in e-commerce in most categories. Since 7 of 15 categories are negatively affected by the gender of female and 3 of the rest are not significantly affected by gender, we infer that men are e-commerce advocates. Our results reveal that females like to buy books, health and beauty products, clothes and jewellery products, housewares and flowers. Women are usually reported as not being engaged with e-commerce because of their resistance to the Internet and their shopping habits. Nevertheless, those reports focus on general online shopping, which ignores product characteristics. Hence, we analyze specific categories in e-commerce and demonstrate that women are more likely to buy some types of products online, despite their lower interest in e-commerce. As to the age factor, a controversial issue in the research, it is generally negatively associated with the possibility of engaging in e-commerce. There are six items (music, videos, entertainment tickets, clothes and jewellery products, electronics and auto products) for which online purchasing decrease with age while three items (software, books and travel) are associated with increased online purchasing as age increases. The remaining categories show fluctuation of the possibility of online purchasing with age. Although increased age represents a stronger

purchasing power, the unfamiliarity with the Internet is one possible reason that prevents older persons from purchasing online. The age-positive items are software, books and travel services, which belong to leisure products. Thus, those products are more acceptable to older consumers. The only exception is software, which also shows the same result as leisure products. We postulate that this finding may be attributed to the different behaviours exhibited by young people and older people in the purchase of software. The remaining two factors, income and education level, are generally positively related with the possibility of engaging in e-commerce.

**Table 9** Regression result for device and safety interaction

	Software		Music		Books		Videos		Tickets	
	coefficient	elasticity	Coefficient	elasticity	coefficient	elasticity	coefficient	elasticity	coefficient	elasticity
pcXsafety	-.042*** (0.0096)	-0.016	-.066*** (0.0095)	-0.018	-.061*** (0.0088)	-0.020	-.069*** (0.01)	-0.017	-.025** (0.009)	-0.010
mobileXsafety	-0.016 (0.016)	-0.006	-.039** (0.015)	-0.011	-0.01 (0.014)	-0.003	-0.011 (0.016)	-0.003	-.062*** (0.014)	-0.023
	Note:		*p<.05;		**p<.01;		***p<.001			

Standard error is in parentheses

\*\*\*p-value less than 0.001, \*\*p-value less than 0.01, \*p-value less than 0.05

**Table 9b** Regression result for device and safety interaction

	Hardware		Health & beauty		Clothes & jewelry		Housewares		Electronics	
	coefficient	elasticity	Coefficient	elasticity	coefficient	elasticity	coefficient	elasticity	coefficient	elasticity
pcXsafety	-.049*** (0.011)	-0.012	-.029* (0.012)	-0.009	-.054*** (0.0089)	-0.018	-.026* (0.011)	-0.010	-.047*** (0.0099)	-0.012
mobileXsafety	-.048** (0.017)	-0.011	-3.60E-03 (0.018)	-0.001	-.034* (0.014)	-0.011	-4.10E-04 (0.018)	0.000	-.064*** (0.016)	-0.017
	Note:		*p<.05;		**p<.01;		***p<.001			

Standard error is in parentheses

\*\*\*p-value less than 0.001, \*\*p-value less than 0.01, \*p-value less than 0.05

**Table 9c** Regression result for device and safety interaction

	Travel		Sports equip		Toys & games		Auto products		Flowers	
	coefficient	elasticity	coefficient	elasticity	coefficient	elasticity	coefficient	elasticity	coefficient	elasticity
pcXsafety	-.051*** (0.0087)	-0.011	-0.012 (0.012)	-0.001	-.06*** (0.01)	-0.02027	0.015 (0.013)	0.001	-.049*** (0.011)	-0.019
mobileXsafety	-.029* (0.015)	-0.006	-1.90E-03 (0.019)	-0.0002	0.012 (0.016)	0.004008	-0.014 (0.02)	-0.001	-0.017 (0.017)	-0.007
			Note:	*p<.05;		**p<.01;		***p<.001		

Standard error is in parentheses

\*\*\*p-value less than 0.001, \*\*p-value less than 0.01, \*p-value less than 0.05

## Hypothesis 5

PCs raise more security concerns than mobile devices do.

From Table 8, we see that most categories support this hypothesis. That finding is contrary to most people's beliefs that PCs seem to be more secure. Nevertheless, if we compare those two devices, we find that mobile devices in some way provide more security than PCs do. First of all, mobile devices are more private because they are usually bound to an individual. A PC can be lent to others, but a mobile device is seldom shared with others. Accordingly, there is lower possibility that personal privacy is leaked by mobile devices. Second, mobile devices can be located easily by GPS technology, effectively preventing inappropriate credit card usage. With the rapid development of mobile technology, many mobile devices have embedded GPS functionality that can locate users easily. For instance, if there is a credit card transaction somewhere a user has never visited, the mobile user will be aware of it immediately (Pete Daffern, 2012). Last but not least, the Blackberry is a good example to demonstrate the higher level of security of mobile devices. The Blackberry is extremely popular among Canadians (Jameson Berkow, 2011), so this may be another reason people believe that mobile devices are more secure.

## **Chapter 6**

### **Conclusion**

The purpose of this study is to explore factors that affect consumer intentions towards e-commerce. By concerning the heterogeneity of products that influences consumer intentions, we run regressions on each category. We conduct Probit regressions on 15 categories to reveal the different impacts of both demographic factors and Internet-related factors on the likelihood of engaging in e-commerce for each of those 15 categories. After every category regression, we plotted the predicted probability of purchasing, and its confidence intervals, which illustrated that certain categories are more suited than others to e-commerce. Besides category classification, we detect device differences among Internet users. Thus, we divide the samples into two groups (PC users and mobile devices users) to explore the differences between those two groups for e-commerce, offering a better understanding of the roles that product characteristics and devices play in e-commerce.

#### **6.1 Contribution**

This study has attempted to fill some gaps in the research on e-commerce acceptance and provide a device factor that impacts the probability of engaging in e-commerce. Previous research have discussed m-commerce and PC-commerce separately without comparing them. Some studies declared that m-commerce is an innovative sales channel. As an extension of e-commerce, it promotes the development of e-commerce (Van Thanh, 2000). However, only some of them provided real evidence to support the idea (Ozok and Wei, 2010). Fewer still specifically explored the Canadian e-commerce condition (Tiessen, Wright, and Turner, 2001). As a high Internet-adoption country, it is necessary to look into the development of e-



commerce behavior in Canada. Previous studies concentrated on using the technology acceptance model to explain consumer intentions towards e-commerce. Nevertheless, they discussed general online shopping, meaning that they ignored the differences between products. However, as is widely known, consumers express different degrees of interest in purchasing different types of products. It is inappropriate to mix all categories together in a discussion of overall e-commerce behaviour.

The contributions of our research are as follows. First, our research demonstrates the contexts of e-commerce in Canada. Our study uses a dataset from a period national survey conducted by Statistics Canada. It is well suited to indicate the popularity of e-commerce in Canada.

Second, we identify the factors that impact the probability of Internet users engaging in e-commerce. Both demographic and Internet-related factors are important variables that determine the probability of persons engaging in e-commerce. Generally, men are more inclined to shop online. Income and education level are positively related with online purchase probability. However, age is negatively associated with the likelihood of purchasing online. Ownership and use of PCs and mobile devices have a positive effect on online shopping. Security concerns are a type of barrier preventing consumers from purchasing online.

Third, our research indicates that category characteristics influence consumer intentions of engaging in e-commerce. For most categories, mobile access affects the purchasing probability more positively than PC access does, except for the purchase of books, entertainment tickets, clothes and jewelry products, and toys and games. The perceived risks by consumers also vary by product category. Music is affected more than housewares by

security concerns. As well, the relation between demographic information and type of products are also different. Women are more inclined to buy books, health and beauty products, clothes and jewelry products, housewares and flowers online. The age effect also varies by products. Some previous research indicated that age is negatively associated with e-commerce, but our study identifies several exceptions such as software, books, and travel services although most categories do support that statement.

Fourth, variation of devices also produces a different effect on purchasing probability. In our data analysis, PC access causes more security concern to consumers than does mobile access, and mobile users are more likely to purchase online.

## **6.2 Analytical and Managerial Implications**

Our findings may have certain value for both academia and business. We fill gaps in the aspects of product differences and user types in e-commerce and suggest a new perspective on e-commerce by introducing device types into e-commerce probability research. As mobile adoption increases, it is well suited to the present e-commerce development trend. According to our findings, mobile devices are viewed as more secure equipment for e-commerce. Although there is debate about whether mobile internet transactions are safe or not, our findings may partly support that it is a safe approach to complete an online trade by a mobile device. Considering some of the unique technologies embedded in mobile device, such as fingerprint detection and GPS locating, mobile devices may be perceived to be safer than PCs. From our analysis, companies can obtain some valuable information for their businesses. Although demographic factors are not detailed in our thesis, they can help e-retailors to establish their marketing strategy. By segmenting consumers into several sub-

groups based on demographic information, companies can make full use of their advertising budget and effectively target their potential consumers. Appendix A lists all the regressions for individual types of product or service, and indicates which variable is the key factor to determine the decision to purchase or not. With the information revealed by our analysis, companies can allocate their advertising resources to the identified opportunities (prime consumer groups). Purchases of some products are mainly affected by gender. Software, hardware, electronics, auto products and sports equipment generally are purchased by males in e-commerce. However, females dominate the purchase of health and beauty products, clothes and jewelry online, although they present more resistance to e-commerce across all categories. Persons aged 55-64 like to buy housewares online. Toys and games are very popular among persons aged 35-44. Persons with university degrees are more likely to buy books, flowers and travel services online. Based on those key factors, companies can aim their advertising at the corresponding online social communities and websites. For example, a purchase through e-commerce is acceptable to men, so companies who sell software can place their advertisements on websites that cater to men. Similarly, companies who sell books, flowers and travel services can focus their ads in university students' social communities that can attract more consumers by spending less money on marketing. Our findings can also help small and medium-sized enterprises to determine their sales channels during early stage planning. From the predicted probabilities, we find that travel services and entertainment tickets are most suited to e-commerce. Thus, small and medium-sized enterprises (SMEs) in those industries have added incentive to quickly establish their sales channels online. With more positive effects from mobile devices on the probability of

engaging in e-commerce, travel services agencies may wish to build mobile apps rather than a traditional web store. As for companies selling entertainment tickets, it is better for them to establish traditional web stores. With the lower costs associated with the establishment of a virtual store than a physical store, it is advantageous for SMEs in those industries to embrace e-commerce.

### **6.3 Limitation and Future Study**

The dataset we use is from the Canadian Internet Usage Survey, which is a national investigation with a large sample size. Compared with datasets in other studies, the Canadian Internet Usage Survey provides a diversity of observations that makes our results more valid. Nevertheless, this survey is not specifically designed for online shopping behavior research. Thus, several important variables that have been widely discussed in other studies are omitted by the survey, such as Internet experience, perceived benefit from the Internet, and level of satisfaction with previous e-commerce interactions. Additionally, our results may not reflect the present e-commerce situation. The data we use are a little bit removed from the present. The survey data are from 2005-2012, and during that period the mobile devices industry experienced dramatic change, a change that is still ongoing. Thus, when we make some predictions about the future shopping probability of certain categories which are plotted in the appendix, the predictions may not be precise because they cannot take into account unanticipated changes in mobile and PC adoptions. In our study, we simply state that mobile devices impact the probability of engaging in e-commerce more than PCs do. In the future, we will try to expand on the reasons why mobile access impacts the probability of engaging in e-commerce more than PC does. However, these data are not present in the survey data

available to us, nor are other variables that affect online purchase. Furthermore, we will collect more data regarding online shopping acceptance variables such as personality lifestyle and normative belief in future research. Then we can more precisely and comprehensively identify the reasons why some persons purchase certain categories, while other persons do not.

## Appendix A

**Table 10** Probit regression of 15 categories

Variable	Software		Music		Books		Video	
	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity
AGE25_34	-0.038 (0.027)	-0.015	.05* (0.026)	0.017	.063** (0.024)	0.019	.133*** (0.028)	0.040
AGE35_44	.088*** (0.027)	0.035	0.037 (0.025)	0.013	.064** (0.024)	0.019	0.039 (0.028)	0.012
AGE45_54	.128*** (0.028)	0.050	-.154*** (0.027)	-0.053	.09*** (0.025)	0.027	-.072* (0.03)	-0.021
AGE55_64	.173*** (0.03)	0.068	-.263*** (0.03)	-0.090	.152*** (0.027)	0.046	-.093** (0.032)	-0.028
COLLEGE	.128*** (0.023)	0.050	.069** (0.022)	0.024	.205*** (0.02)	0.062	.056* (0.024)	0.017
UNIVERSITY	.301*** (0.024)	0.118	.256*** (0.023)	0.088	.631*** (0.021)	0.190	.156*** (0.025)	0.047
FEMALE	-.443*** (0.017)	-0.173	-.16*** (0.016)	-0.055	.183*** (0.015)	0.055	-.128*** (0.018)	-0.038
Low-Income	.068* (0.033)	0.027	-0.016 (0.033)	-0.005	-0.015 (0.03)	-0.005	0.017 (0.035)	0.005
Medium-Income	0.003 (0.023)	0.001	-0.009 (0.022)	-0.003	-0.022 (0.02)	-0.007	-0.004 (0.024)	-0.001
High-Income	0.027 (0.02)	0.011	.082*** (0.019)	0.028	.057** (0.018)	0.017	-0.016 (0.021)	-0.005
PC	0.157 (0.11)	0.061	0.120 (0.1)	0.041	.228* (0.1)	0.069	0.225 (0.12)	0.067
mobile	.307*** (0.02)	0.120	.447*** (0.02)	0.153	.199*** (0.019)	0.060	.264*** (0.021)	0.079

**Table 10(cont'd)** Probit regression of 15 categories

Variable	Software		Music		Books		Video	
	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity
Safety	-.04*** (0.0078)	-0.016	-.069*** (0.0075)	-0.024	-.059*** (0.0071)	-0.018	-.066*** (0.0081)	-0.020
year	-.019*** (0.0037)	-0.007	.035*** (0.0036)	0.012	6.7e-03* (0.0033)	0.002	.014*** (0.0039)	0.004
_cons	36.6*** (7.4)		-70.4*** (7.3)		-14.6* (6.7)		-28.5*** (7.8)	
	LR chi2(14)=1300 Pseudo R2=0 Prob > chi2=0		LR chi2(14)=2000 Pseudo R2=0 Prob > chi2=0		LR chi2(14)=1700 Pseudo R2=0 Prob > chi2=0		LR chi2(14)=631 Pseudo R2=0 Prob > chi2=0	
Note:		*p<.05;		**p<.01;			***p<.001	

Standard error is in parentheses

\*\*\*p-value less than 0.001, \*\*p-value less than 0.01, \*p-value less than 0.05



**Table 10b** Probit regression of 15 categories

Variable	Tickets		Hardware		Health&beauty		Clothes&jewelry	
	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity
AGE25_34	.139*** (0.024)	0.055	0.035 (0.03)	0.010	.144*** (0.032)	0.048	.11*** (0.024)	0.042
AGE35_44	.091*** (0.024)	0.036	0.041 (0.03)	0.012	.11*** (0.032)	0.036	0.003 (0.024)	0.001
AGE45_54	0.017 (0.025)	0.006	0.027 (0.032)	0.008	.147*** (0.033)	0.049	-.162*** (0.025)	-0.062
AGE55_64	-.11*** (0.028)	-0.043	-0.027 (0.035)	-0.008	.124*** (0.036)	0.041	-.203*** (0.027)	-0.077
COLLEGE	.133*** (0.02)	0.052	.124*** (0.026)	0.036	-0.022 (0.026)	-0.007	-0.034 (0.02)	-0.013
UNIVERSITY	.287*** (0.022)	0.112	.228*** (0.028)	0.066	-0.038 (0.028)	-0.013	-.074*** (0.022)	-0.028
FEMALE	0.006 (0.015)	0.002	-.526*** (0.019)	-0.151	.423*** (0.02)	0.141	.417*** (0.015)	0.158
Low-Income	-.291*** (0.032)	-0.114	.158*** (0.038)	0.046	-0.047 (0.039)	-0.016	-.124*** (0.031)	-0.047
Medium- Income	-.048* (0.021)	-0.019	0.028 (0.026)	0.008	-0.020 (0.027)	-0.007	-0.009 (0.021)	-0.003
High-Income	.224*** (0.018)	0.088	0.007 (0.023)	0.002	0.020 (0.023)	0.007	.159*** (0.018)	0.061
PC	.342*** (0.1)	0.134	.286* (0.13)	0.082	0.128 (0.13)	0.042	.345*** (0.1)	0.131
mobile	.326*** (0.019)	0.128	.298*** (0.023)	0.086	.187*** (0.024)	0.062	.313*** (0.019)	0.119

**Table 10b (cont'd)** Probit regression of 15 categories

	Tickets		Hardware		Health&beauty		Clothes&jewellery	
Variable	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity
Safety	-.04*** (0.0072)	-0.015	-.058*** (0.0088)	-0.017	-.024** (0.0092)	-0.008	-.057*** (0.0072)	-0.022
year	.072*** (0.0034)	0.028	-.02*** (0.0042)	-0.006	.034*** (0.0043)	0.011	.034*** (0.0034)	0.013
_cons	-146*** (6.8)		37.9*** (8.5)		-69.4*** (8.7)		-68.4*** (6.8)	
	LR		LR		LR		LR	
	chi2(14)=2500		chi2(14)=1100		chi2(14)=755		chi2(14)=1900	
	Pseudo		Pseudo		Pseudo		Pseudo	
	R2=0.062		R2=0.05		R2=0.035		R2=0.049	
	Prob > chi2=0		Prob > chi2=0		Prob > chi2=0		Prob > chi2=0	
	Note:	*p<.05;		**p<.01;		***p<.001		

Standard error is in parentheses

\*\*\*p-value less than 0.001, \*\*p-value less than 0.01, \*p-value less than 0.05

**Table 10c** Probit regression of 15 categories

Variable	House ware		Electronics		Travel		Sport equip	
	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity
AGE25_34	.192*** (0.032)	0.073	.095*** (0.027)	0.030	.145*** (0.024)	0.024	.117*** (0.033)	0.018
AGE35_44	.269*** (0.032)	0.103	.089** (0.027)	0.028	.187*** (0.024)	0.031	.164*** (0.033)	0.025
AGE45_54	.216*** (0.033)	0.083	0.013 (0.029)	0.004	.309*** (0.025)	0.051	0.051 (0.034)	0.008
AGE55_64	.289*** (0.035)	0.111	-0.045 (0.031)	-0.014	.324*** (0.027)	0.053	-0.025 (0.038)	-0.004
COLLEGE	-0.027 (0.025)	-0.010	.066** (0.023)	0.021	.194*** (0.02)	0.032	0.012 (0.027)	0.002
UNIVERSITY	0.000 (0.027)	0.000	.057* (0.024)	0.018	.55*** (0.021)	0.090	-0.042 (0.029)	-0.006
FEMALE	.137*** (0.019)	0.053	-.469*** (0.017)	-0.150	0.019 (0.015)	0.003	-.442*** (0.021)	-0.066
Low-Income	-.12** (0.041)	-0.046	0.039 (0.035)	0.013	-.284*** (0.031)	-0.047	-.277*** (0.049)	-0.042
Medium-Income	-0.023 (0.027)	-0.009	-0.012 (0.024)	-0.004	-0.036 (0.02)	-0.006	-0.047 (0.029)	-0.007
High-Income	.158*** (0.022)	0.060	.069*** (0.02)	0.022	.305*** (0.018)	0.050	.178*** (0.024)	0.027
PC	0.125 (0.13)	0.048	0.164 (0.11)	0.052	.245* (0.099)	0.040	-0.053 (0.13)	-0.008
mobile	.162*** (0.023)	0.062	.335*** (0.021)	0.107	.322*** (0.019)	0.053	.18*** (0.025)	0.027

**Table 10c (cont'd)** Probit regression of 15 categories

	House ware		Electronics		Travel		Sport equip	
Variable	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity
Safety	-.021*	-0.008	-.062***	-0.020	-.052***	-0.009	-0.007	-0.001
	(0.0089)		(0.0079)		(0.0071)		(0.0095)	
year	0.000	0.000	-.017***	-0.006	.053***	0.009	.016***	0.002
	(0.0042)		(0.0038)		(0.0033)		(0.0046)	
_cons	-2.320		33.9***		-108***		-34.3***	
	(8.5)		(7.7)		(6.6)		(9.1)	
	LR		LR		LR		LR	
	chi2(14)=351		chi2(14)=1300		chi2(14)=3200		chi2(14)=864	
	Pseudo		Pseudo		Pseudo		Pseudo	
	R2=0.016		R2=0.045		R2=0.075		R2=0.44	
	Prob > chi2=0		Prob > chi2=0		Prob > chi2=0		Prob > chi2=0	
Note:		*p<.05;		**p<.01;		***p<.001		

Standard error is in parentheses

\*\*\*p-value less than 0.001, \*\*p-value less than 0.01, \*p-value less than 0.05

**Table 10d** Probit regression of 15 categories

Variable	Toys&games		Auto products		Flowers	
	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity
AGE25_34	.419*** (0.028)	0.156	.147*** (0.035)	0.016	.229*** (0.031)	0.091
AGE35_44	.45*** (0.028)	0.168	.147*** (0.034)	0.016	.209*** (0.031)	0.083
AGE45_54	-0.044 (0.031)	-0.017	.134*** (0.035)	0.014	.214*** (0.032)	0.085
AGE55_64	-.118*** (0.034)	-0.044	0.044 (0.039)	0.005	.266*** (0.034)	0.105
COLLEGE	-0.034 (0.023)	-0.013	-0.001 (0.027)	0.000	.11*** (0.026)	0.044
UNIVERSITY	-.086*** (0.025)	-0.032	-.349*** (0.031)	-0.037	.288*** (0.027)	0.114
FEMALE	0.021 (0.017)	0.008	-.688*** (0.023)	-0.073	.135*** (0.018)	0.053
Low-Income	-0.058 (0.036)	-0.022	-.178*** (0.048)	-0.019	-.265*** (0.043)	-0.105
Medium- Income	-.048* (0.024)	-0.018	0.037 (0.029)	0.004	-0.034 (0.026)	-0.014
High-Income	.084*** (0.021)	0.031	.109*** (0.025)	0.012	.209*** (0.021)	0.083
PC	.347** (0.12)	0.129	0.018 (0.13)	0.002	0.239 (0.14)	0.095
mobile	.26*** (0.021)	0.097	.131*** (0.026)	0.014	.188*** (0.023)	0.075

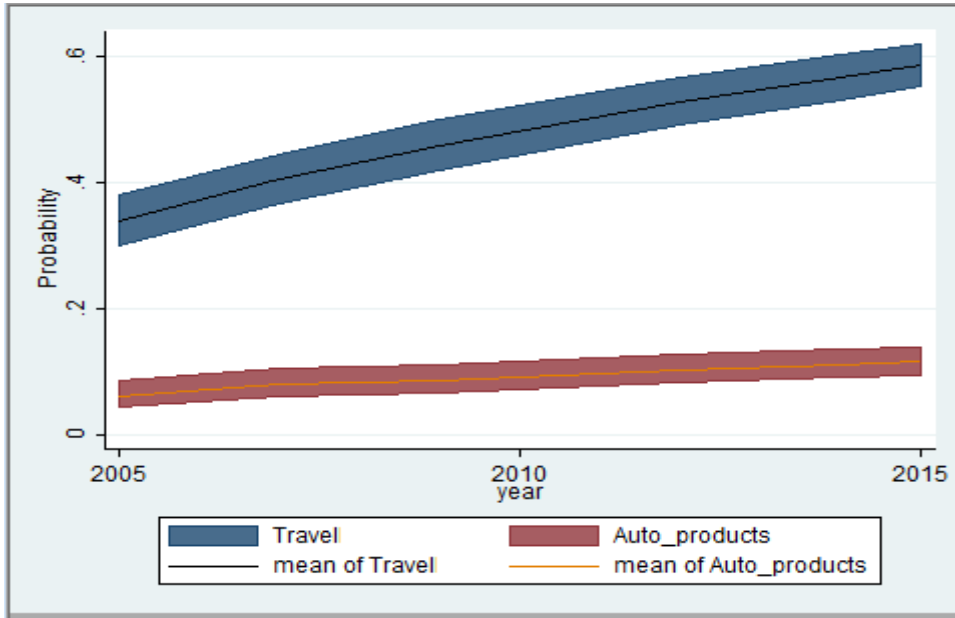
**Table 10d (cont'd)** Probit regression of 15 categories

	Toys&games		Auto products		Flowers	
Variable	Coefficient	Elasticity	Coefficient	Elasticity	Coefficient	Elasticity
Safety	-.048*** (0.0081)	-0.018	0.012 (0.01)	0.001	-.049*** (0.0086)	-0.020
year	.024*** (0.0039)	0.009	.034*** (0.0048)	0.004	-.027*** (0.0041)	-0.011
_cons	-49.5*** (7.8)		-68.5*** (9.6)		51.9*** (8.3)	
	LR		LR		LR	
	chi2(14)=1400		chi2(14)=1400		chi2(14)=775	
	Pseudo		Pseudo		Pseudo	
	R2=0.047		R2=0.078		R2=0.031	
	Prob > chi2=0		Prob > chi2=0		Prob > chi2=0	
Note:		*p<.05;		**p<.01;		***p<.001

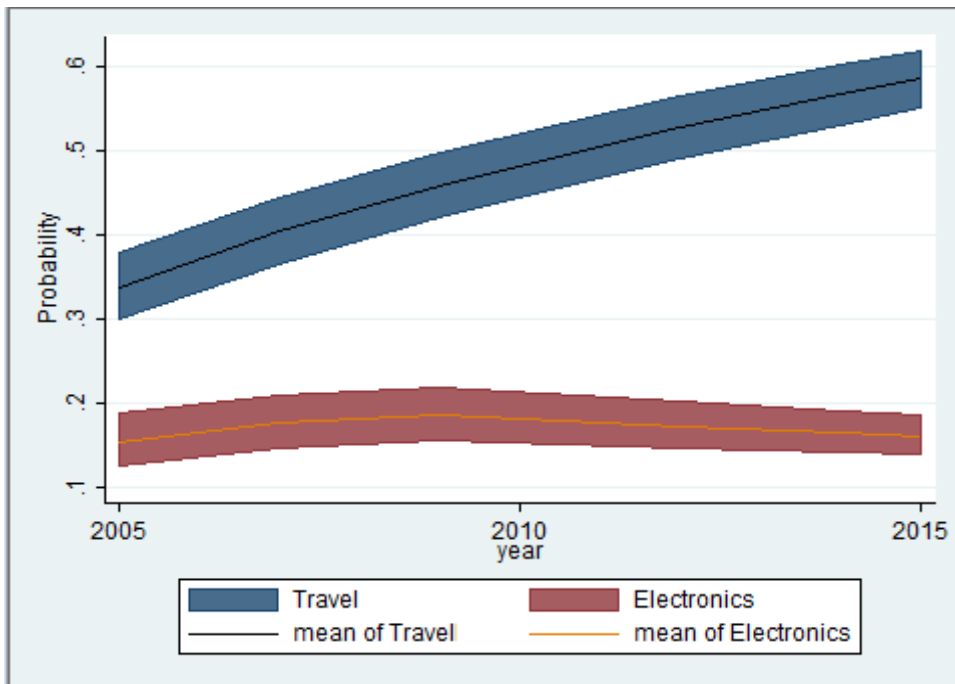
Standard error is in parentheses

\*\*\*p-value less than 0.001, \*\*p-value less than 0.01, \*p-value less than 0.05

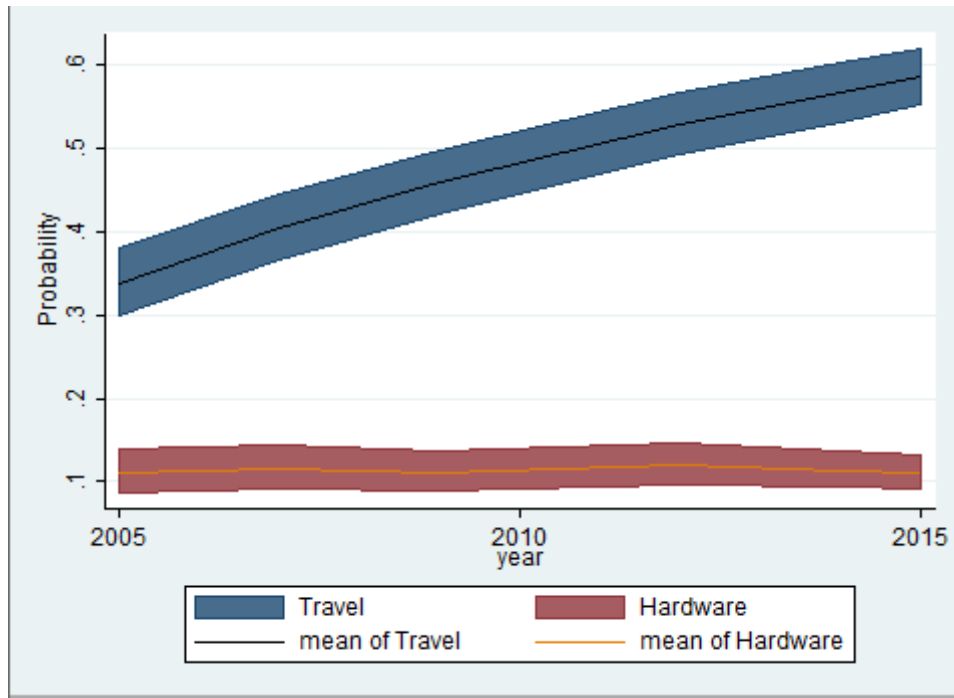
**Figure 2 Travel auto products comparison**



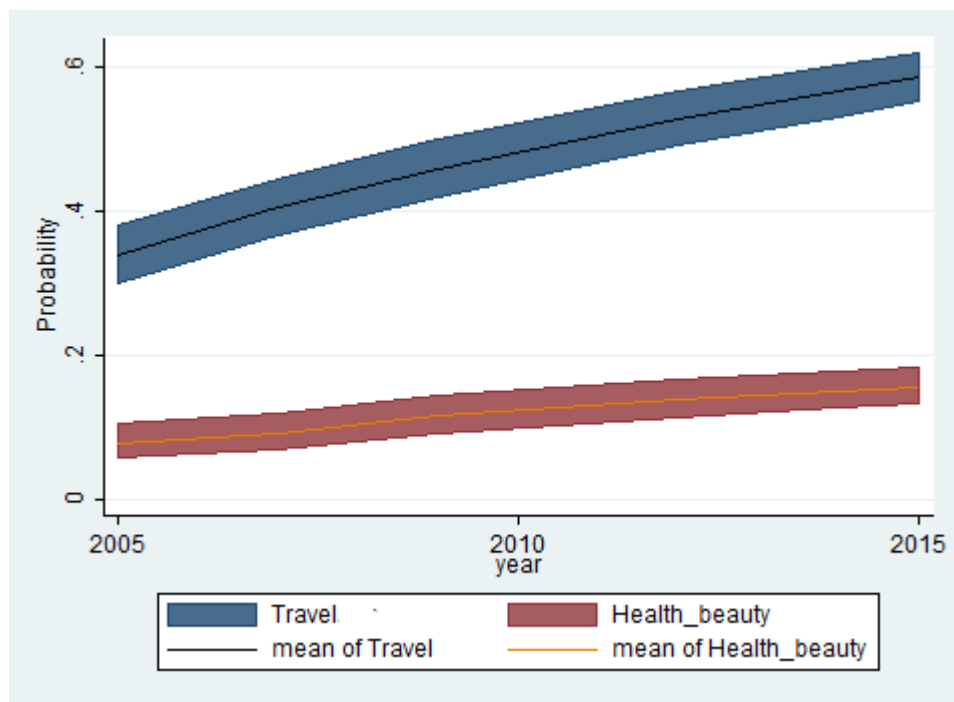
**Figure 3 Travel Electronics comparison**



**Figure 4 Travel hardware comparison**

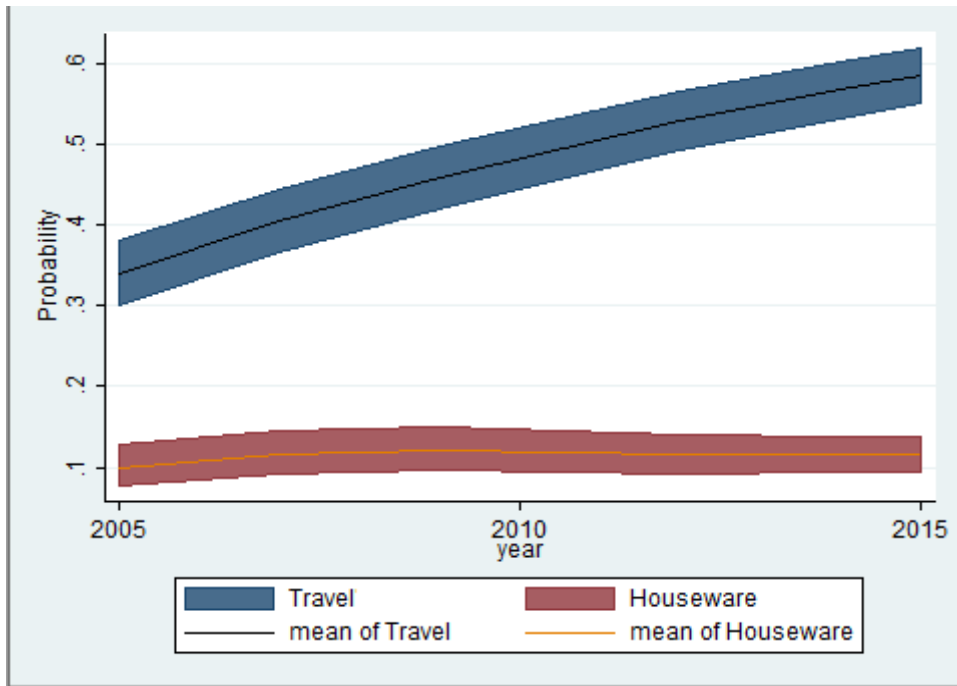


**Figure 5 Travel, health&beauty products**

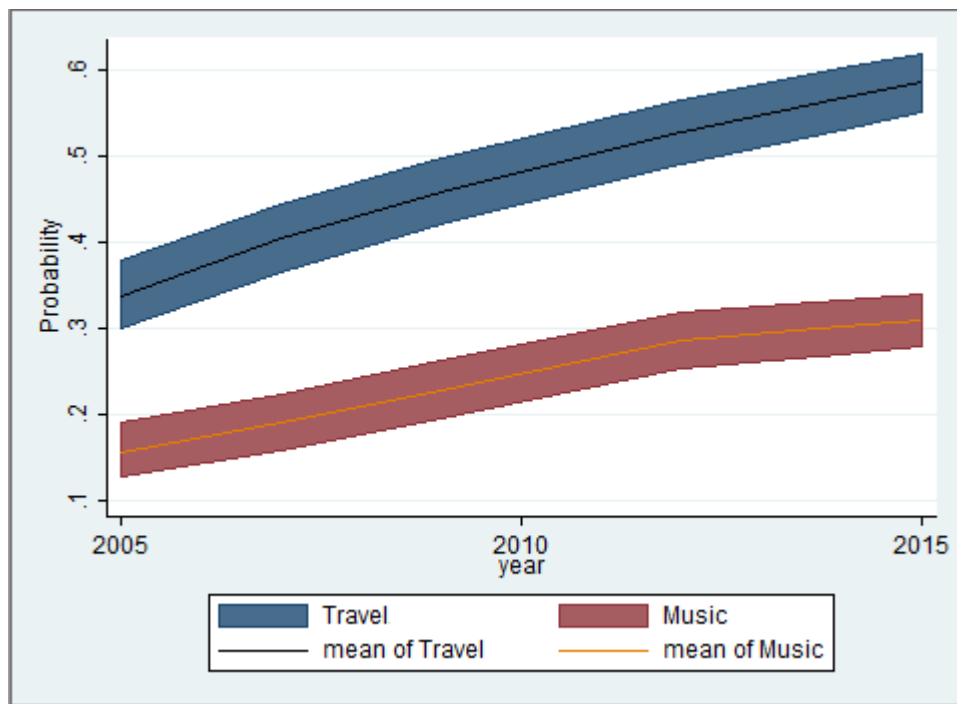




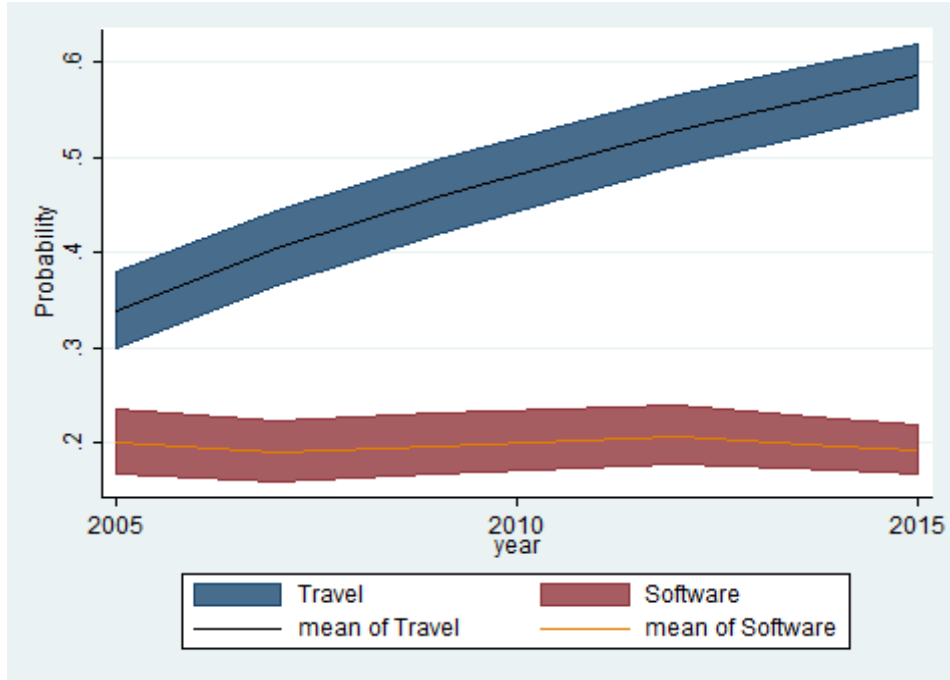
**Figure 6 Travel Houseware comparison**



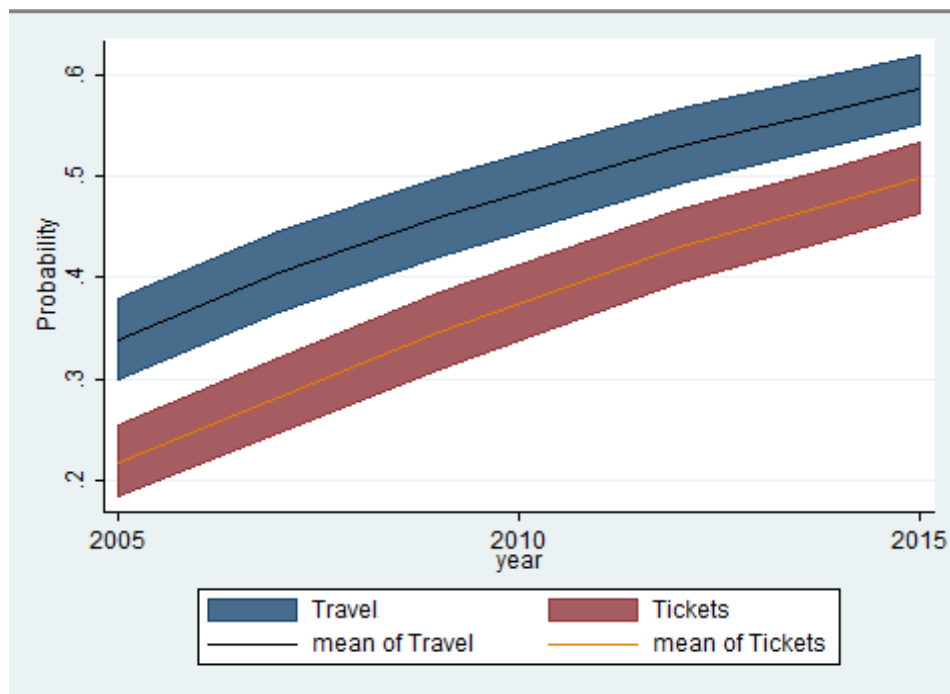
**Figure 7 Travel music comparison**



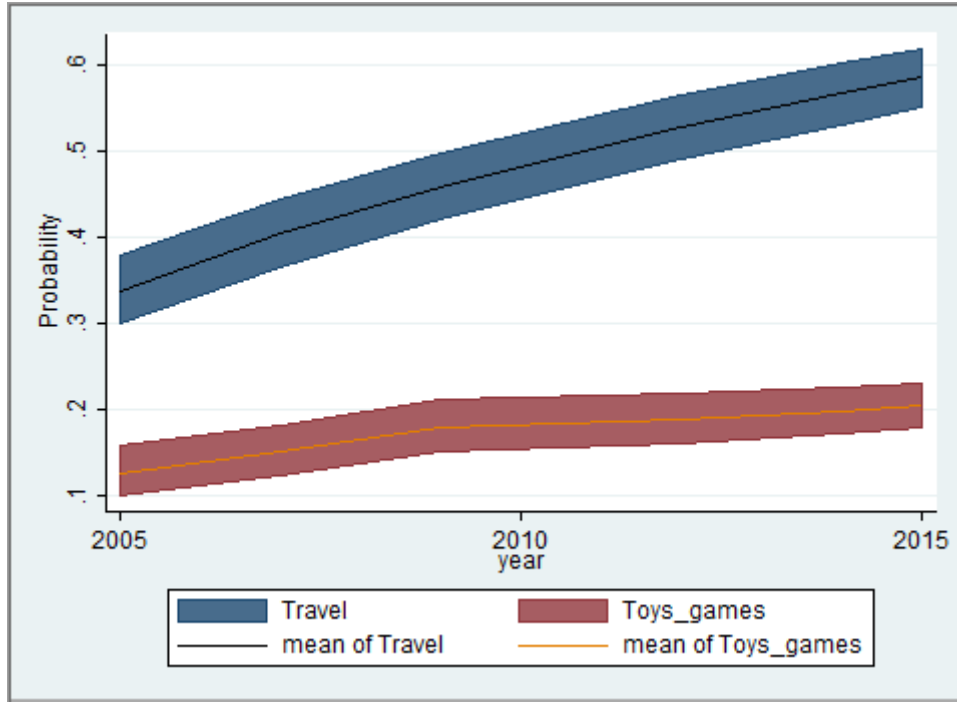
**Figure 8 Travel software comparison**



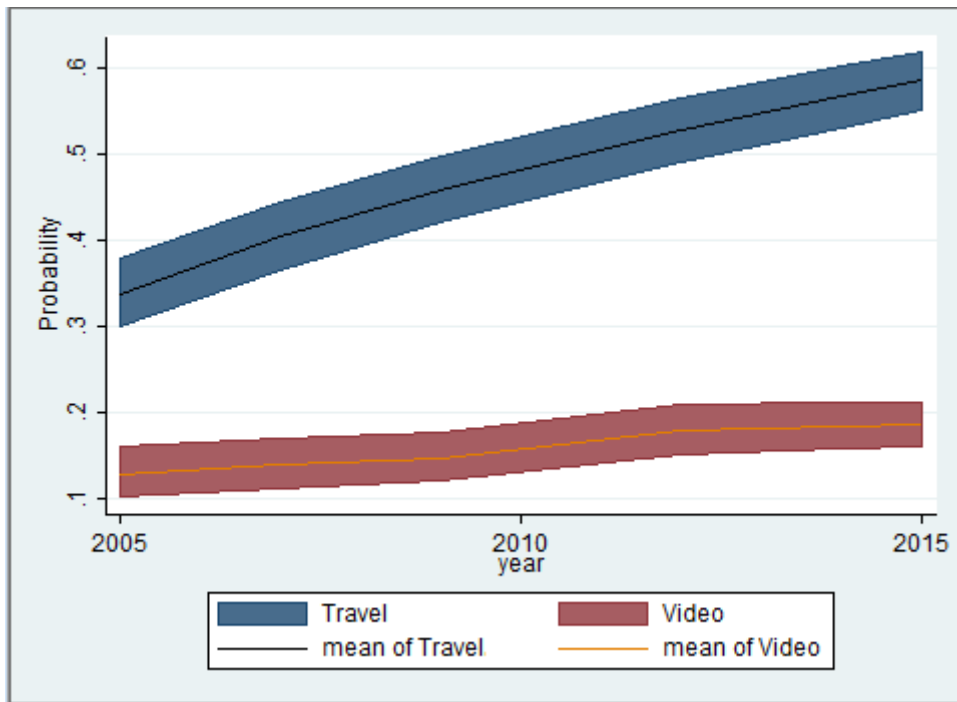
**Figure 9 Travel tickets comparison**



**Figure 10 Travel, toys&games comparison**



**Figure 11 Travel video comparison**



**Manipulate raw data. As the survey data is similar with each other, we just show the code to the year of 2005 survey as an example.**

```
set more off

foreach y of varlist ec_q01- ec_g02{
replace `y'=. if `y'>=6
}

drop if missing(ec_q01)
tab(gcagegr6), gen(D_age)
tab( ev_q02),gen(experience)
rename experience1 yr1_less
rename experience2 yr1_yr2
rename experience3 yr2_yr5
rename experience4 yr5_more
drop experience5

tab(g_ceduc), gen(EU)
tab(ec_q08), gen(window_shop)
tab( csex), gen(sex)

tab( g_hquint), gen( G_HQUINT)
rename G_HQUINT1 LESS21000
rename G_HQUINT2 FROM21001_37999
rename G_HQUINT3 FROM38000_59999
rename G_HQUINT4 FROM60000_85999
rename G_HQUINT5 MORE86000
rename LESS21000 income_low
rename FROM38000_59999 income_medium
rename MORE86000 income_high
rename D_age1 AGE16_24
rename D_age2 AGE25_34
rename D_age3 AGE35_44
rename D_age4 AGE45_54
```

```

rename D_age5 AGE55_64
rename D_age6 AGE65OLDDER
rename EU1 HIGHSCHOOL_LESS
rename EU2 COLLEGE
rename EU3 UNIVERSITY
rename sex1 MALE
rename sex2 FEMALE
tab(iu_q02a), gen(desktop)
tab(iu_q02b), gen(laptop)
tab(iu_q02e), gen (mobile)
tab(iu_g02), gen(others)
gen PC= desktop1+ laptop1
replace PC=1 if PC==2
gen pure_PC=PC
replace pure_PC=0 if mobile1==1
replace pure_PC=0 if others1==1
gen pure_mobile=mobile1
replace pure_mobile=0 if PC==1
replace pure_mobile=0 if others1==1
gen PC_mobile= PC+ mobile1
replace PC_mobile=0 if PC_mobile==1
replace PC_mobile=1 if PC_mobile==2
replace PC_mobile=0 if others1==1
tab (ec_q01), gen(Buy_online)
rename Buy_online1 Buy_online
tabulate (ec_q02a), gen(D_EC_Q02A)
tabulate (ec_q02b), gen(D_EC_Q02B)
tabulate (ec_q02c), gen(D_EC_Q02C)
tabulate (ec_q02d), gen(D_EC_Q02D)
tabulate (ec_q02e), gen(D_EC_Q02E)
tabulate (ec_q02f), gen(D_EC_Q02F)

```

```
tabulate (ec_q02i), gen(D_EC_Q02I)
tabulate (ec_q02j), gen(D_EC_Q02J)
tabulate (ec_q02k), gen(D_EC_Q02K)
tabulate (ec_q02l), gen(D_EC_Q02L)
tabulate (ec_q02m), gen(D_EC_Q02M)
tabulate (ec_q02n), gen(D_EC_Q02N)
tabulate (ec_q02o), gen(D_EC_Q02O)
tabulate (ec_q02p), gen(D_EC_Q02P)
tabulate (ec_q02q), gen(D_EC_Q02Q)
rename D_EC_Q02A1 Software
rename D_EC_Q02B1 Hardware
rename D_EC_Q02C1 Music
rename D_EC_Q02D1 Books
rename D_EC_Q02E1 Video
rename D_EC_Q02F1 Tickets
rename D_EC_Q02I1 Health_beauty
rename D_EC_Q02J1 Clothes_jewelry
rename D_EC_Q02K1 Housewares
rename D_EC_Q02L1 Electronics
rename D_EC_Q02M1 Automotive
rename Automotive Auto_products
rename D_EC_Q02N1 Travel
rename D_EC_Q02O1 Flowers
rename D_EC_Q02P1 Sport_Equip
rename D_EC_Q02Q1 Toys_game
rename Toys_game Toys_games
tab( ps_q02), gen(banking)
tab( ps_q03), gen(creditcard)
gen banking= banking2+ banking3
gen creditcard= creditcard2+ creditcard3
gen safety= banking+ creditcard
```

```
egen Safety_ =std( safety)
```

```
drop refyear region g_urbrur gcagegr6 csex gmarstat g_ceduc g_cstud g_clfsst gcowmain  
fptmain gfamtype g_hhsize hconnect g_heduc g_hstud ev_q01 ev_q02 pu_q01 pu_q02 pu_q03  
pu_q06a pu_q06e pu_q06j pu_q06k pu_g06 lu_q01 lu_q02 lu_g03 lu_q04 lu_g05 lu_g06a  
lu_g06b lu2_g06 iu_q01a iu_q01b iu_q01g iu_g01 iu_q02a iu_q02b iu_g02 iu_q02e iu_q03  
iu_q04 iu_g05 iu_q06 su_q01 su_q02 su_q03 su_q04 su_q05 su_g06 su_q07 su_q08 su_q09  
su_q10 su_q11 su_q12 su_q13 su_q14 su_q15 su_q16 su_q17 su_q18 su_q19 su_q20 su_g21  
su_q22 su_q23 gl_q01a gl_q01b gl_q01c gl_q01d gl_q01e gl_q01f gl_q01g gl_q01i gl_q01j  
gl_g01 gl_q02 gl_q03 gl_q04a gl_q04b gl_q04c gl_g05 mh_q01a mh_q01b mh_q01c mh_q01d  
mh_q01e mh_q01f mh_q01g mh_q01h mh_g02 mh_q03 eu_g01a eu_g01b eu_g01c eu_g01d  
eu_g01 sc_q01 sc_q02 sc_q03 ec_q01 ec_q02a ec_q02b ec_q02c ec_q02d ec_q02e ec_q02f  
ec_q02i ec_q02j ec_q02k ec_q02l ec_q02m ec_q02n ec_q02o ec_q02p ec_q02q ec_g02 ec_q03  
ec_q04 ec_q05 ec_q06 ec_q07a ec_q07b ec_g07 ec_q08 ec_q09a ec_q09b ec_q09c ec_q09d  
ec_q09e ec_q09f ec_q09g ec_q09h ec_q09i ec_q09m ec_q09n ec_q09o ec_q09p ec_q09q ec_q09r  
ec_g09 ec_q10 nu_q01 nu_q02a nu_q02b nu_q02d nu_g02 nu_q03 nu_q04 nu_q05a nu_q05b  
nu_g05 nu_q06a nu_g06 nu_q07a nu_q07b nu_q07e nu_q07f nu_q07j nu_g07 nu_g08 nu_q09  
ps_q01 ps_q02 ps_q03 ps_q04 ps_q05 g_hquint
```

```
drop AGE65OLDDER HIGHSCHOOL_LESS MALE FROM21001_37999  
FROM60000_85999 desktop2 laptop2 mobile2 others2 D_EC_Q02A2 D_EC_Q02B2  
D_EC_Q02C2 D_EC_Q02D2 D_EC_Q02E2 D_EC_Q02F2 D_EC_Q02I2 D_EC_Q02J2  
D_EC_Q02K2 D_EC_Q02L2 D_EC_Q02M2 D_EC_Q02N2 D_EC_Q02O2 D_EC_Q02P2  
D_EC_Q02Q2 banking1 banking2 banking3 banking4 creditcard1 creditcard2 creditcard3  
creditcard4 creditcard5 banking creditcard
```

```
rename province PROVINCE
```

```
gen year=2005
```

```
replace pumfid=_n
```

```
foreach y of varlist pumfid- year {
```

```
label variable `y' ""
```

```
}
```

```
rename pumfid PUMFID
```

```
rename wtp WTPP
```

```
drop window_shop3
```

**Output the predicted probability of purchasing online with its confidence intervals.**

```
set more off
```

```
levelsof year, local(YEARS)
```

```
foreach year in `YEARS'{
```

```

foreach yvar in Software Music Books Video Tickets Hardware Health_beauty
Clothes_jewelry Housewares Electronics Travel Sport_Equip Toys_games Auto_products
Flowers {
    Probit `yvar' AGE25_34 AGE35_44 AGE45_54 AGE55_64 COLLEGE UNIVERSITY
FEMALE income_low income_medium income_high PC mobile1 Safety_ if year==`year'
    predict se`yvar`^year' if year==`year',stdp
    predict yhat`yvar`^year' if year==`year',xb
    generate lb`yvar`^year' = yhat`yvar`^year' - invnormal(0.975)*se`yvar`^year' if year==`year'
    generate plb`yvar`^year'=normal(lb`yvar`^year') if year==`year'
    predict pr`yvar`^year' if year==`year'
    generate ub`yvar`^year' = yhat`yvar`^year' + invnormal(0.975)*se`yvar`^year' if year==`year'
    generate pub`yvar`^year'=normal(ub`yvar`^year') if year==`year'
    drop se`yvar`^year' yhat`yvar`^year' lb`yvar`^year' ub`yvar`^year'
}
}

```

**Conduct the Wald test after regression and compute the elasticity of each independent variables when they are equal to 1.**

```

set more off

foreach yvar in Software Music Books Video Tickets Hardware Health_beauty
Clothes_jewelry Housewares Electronics Travel Sport_Equip Toys_games Auto_products
Flowers {
    Probit `yvar' AGE25_34 AGE35_44 AGE45_54 AGE55_64 COLLEGE UNIVERSITY
FEMALE income_low income_medium income_high PC mobile1Safety_ year
    est store `yvar'
    test PC=mobile1

    margins, dydx(*) at (AGE25_34=1 AGE35_44=1 AGE45_54=1 AGE55_64=1 COLLEGE=1
UNIVERSITY=1 FEMALE=1 income_low=1 income_medium=1 income_high=1 PC=1
mobile1=1)
}

```

**Plot out the online purchase probability of each category with its confidence intervals. We use travel services as an example and show all the categories that are less popular than travel services.**

```

twoway (rarea LbTravel UbTravel year) (rarea LbSoftware UbSoftware year) (line XbTravel
year) (line XbSoftware year), ytitle(Probability) saving(TravelSoftware) name(TravelSoftware)

```



twoway (rarea LbTravel UbTravel year) (rarea LbMusic UbMusic year) (line XbTravel year) (line XbMusic year), ytitle(Probability) saving(TravelMusic) name(TravelMusic)

twoway (rarea LbTravel UbTravel year) (rarea LbVideo UbVideo year) (line XbTravel year) (line XbVideo year), ytitle(Probability) saving(TravelVideo) name(TravelVideo)

twoway (rarea LbTravel UbTravel year) (rarea LbTickets UbTickets year) (line XbTravel year) (line XbTickets year), ytitle(Probability) saving(TravelTickets) name(TravelTickets)

twoway (rarea LbTravel UbTravel year) (rarea LbHardware UbHardware year) (line XbTravel year) (line XbHardware year), ytitle(Probability) saving(TravelHardware) name(TravelHardware)

twoway (rarea LbTravel UbTravel year) (rarea LbHealth\_beauty UbHealth\_beauty year) (line XbTravel year) (line XbHealth\_beauty year), ytitle(Probability) saving(TravelHealth\_beauty) name(TravelHealth\_beauty)

twoway (rarea LbTravel UbTravel year) (rarea LbHouseware UbHouseware year) (line XbTravel year) (line XbHouseware year), ytitle(Probability) saving(TravelHouseware) name(TravelHouseware)

twoway (rarea LbTravel UbTravel year) (rarea LbElectronics UbElectronics year) (line XbTravel year) (line XbElectronics year), ytitle(Probability) saving(TravelElectronics) name(TravelElectronics)

twoway (rarea LbTravel UbTravel year) (rarea LbToys\_games UbToys\_games year) (line XbTravel year) (line XbToys\_games year), ytitle(Probability) saving(TravelToys\_games) name(TravelToys\_games)

twoway (rarea LbTravel UbTravel year) (rarea LbAuto\_products UbAuto\_products year) (line XbTravel year) (line XbAuto\_products year), ytitle(Probability) saving(TravelAuto\_products) name(TravelAuto\_products)

## **Appendix B**

**2012 Canadian Internet Usage Survey questionnaire**

Canada

Special Surveys Division, Statistics Canada

Canadian Internet Use Survey, 2012 [Canada]: Person File

Study Documentation

March 11, 2014

## Metadata Production

Metadata Producer(s) Data Centre (DC) , Carleton University

Production Date	March 28, 2014
Version	January 24, 2014 - Carleton University - Put up new file January 28, 2014 - Carleton University
	- Added universe and question texts February 11, 2014 - Carleton University - Data that was missing from the following variables was added: HA_Q04D, HA_Q04E, HA_Q05A, HA_Q05B, HA_Q05C, HA_Q05D, HA_Q06, HA_Q09, G_HQUINT, and WTPP
Identification	cius-56M0005XCB-E-2012-person-file



Overview	
Type	Canadian Information Use Survey
Identification	cius-56M0005XCB-E-2012-person-file
Series	<p>The Canadian Internet Use Survey (CIUS) was conducted for the first time in 2005, replacing the Household Internet Use Survey (HIUS). The HIUS had been conducted annually from 1997 to 2003 to measure household Internet use. As growth in the number of households using the Internet levels off, the survey was redesigned to focus on how individuals, rather than households, are using the Internet. Survey content for 2009 is consistent with the 2007 survey, with two main changes: the Medical Health Use (MH) module was dropped from the 2009 survey; and the Government Online (GL) module was condensed and now contains one question examining users' specific online activities related to government information. In addition, some modules asked in 2005 were not repeated for both the 2007 and 2009 surveys. The CIUS was further redesigned in 2010 to better measure the type and speed of household Internet connections. As the new survey has two distinct components - household and individual - with revised and streamlined questions, it is not appropriate to directly compare results from these two surveys in most cases.</p>
<p><u>Abstract</u></p> <p>The Canadian Internet Use Survey (CIUS) was conducted for the first time in 2005, replacing the Household Internet Use Survey (HIUS). The HIUS had been conducted on a biennial basis from 1997 to 2003 to measure household Internet use. As growth in the number of households using the Internet leveled off, the survey was redesigned to focus on how individuals, rather than households, are using the Internet. The individual-level CIUS was conducted in 2005, 2007 and 2009. For 2010, the CIUS was redesigned to meet the measurement needs of the Broadband Canada: Connecting Rural Canadians Program, sponsored by Industry Canada. For the first time, the redesigned survey incorporated a hybrid design, consisting of both a Household Component and an Individual Component. The 2012 CIUS was conducted under the 2010 design. The Household Component includes a short series of questions on the type of Internet connections and devices used by household members, from home, as well as availability of high speed service, and a standard module on household income. The questions may be answered by any knowledgeable member of the household. Following the Household Component, an individual aged 16 years and older was randomly selected to complete the Individual Component. Respondents were asked about their use of the Internet, and online activities including electronic commerce. While the Household Component covered Internet access at home, the Individual Component covers use of the Internet from any location. The Individual Component begins with a module on Current User (CU) of the Internet. As in past years, the CIUS asks individuals about their locations of Internet use, frequency and intensity of use, and reasons for non-use. The Specific Use (SU) module, as in 2010, asks respondents to report their Internet activities. These activities cover a wide range of topics including the use of email, instant messaging, formal education, and the search for employment. As with the 2010 survey, these activities could have taken place from any location and using any device. The Electronic Commerce (EC) module collects information on the total number, the total cost, and the types of goods and services ordered over the internet. Additional information is also collected on the location of delivery, the means of payment, and the main reason for not participating in e-commerce. This module remained consistent with the 2010 survey. The Privacy and Security (PS) module includes questions about online behaviour (e.g., use of security software, frequency of backing up files) and experiences related to security (e.g., experienced a computer virus). For the 2012 survey, this module was slightly modified with the addition of questions regarding concern for security while using internet banking or credit cards online. As the 2010 and the 2012 surveys have two distinct components - household and individual - with revised and streamlined questions, it is not appropriate to make direct comparisons with results from previous years. Data users who have questions about the survey are invited to contact the Investment, Science and Technology Division (please refer to Chapter 1.0 for contact information).</p>	
Kind of Data	Survey Data

Unit of Analysis	Individual representing household
------------------	-----------------------------------

Scope & Coverage	
Keywords	Access, Consumption per capita, Electronic commerce, Fixed wireless, High speed connection, Household characteristics, Household consumption, Internet, Internet use, Laptop computer, Misuse of personal information on the Internet, Mobile Internet service for Blackberry, iPhone or other wireless handheld device, Point-to-point connections, Socio-demographic characteristics, Wife hotspot, Wireless connection
Topics	Internet
Time Period(s)	2012
Countries	Canada
<u>Geographic Coverage</u> Canada, Provinces, Census Metropolitan Areas	
<u>Universe</u> Included: Residents of Canada 16 years of age and older. Excluded: Residents of the Yukon, Northwest Territories and Nunavut, persons living on Indian Reserves, full-time members of the Canadian Forces and inmates of institutions.	

Producers & Sponsors	
Primary Investigator(s)	Special Surveys Division, Statistics Canada
Other Producer(s)	Special Surveys Division (SSD) , Statistics Canada

Sampling	
<u>Sampling Procedure</u> Sub-sample of Labour Force Survey; sample survey with a cross-sectional design	
<u>Weighting</u> The principle behind estimation in a probability sample such as the LFS is that each person in the sample "represents", besides himself or herself, several other persons not in the sample. For example, in a simple random 2% sample of the population, each person in the sample represents 50 persons in the population. <p/> The weighting phase is a step which calculates, for each record, what this number is. This weight appears on the microdata file, and must be used to derive meaningful estimates from the survey. For example if the number of persons using the Internet from home is to be estimated, it is done by selecting the records referring to those individuals in the sample with that characteristic and summing the weights entered on those records.<p/>	

Data Collection	
Data Collection Dates start	2012-10-14
end	2012-11-20
Data Collection Mode	Computer-assisted telephone interviewing (CATI)
<u>Questionnaires</u> Structured	
Data Collector(s)	Special Surveys Division (SSD) , Statistics Canada

## Data Processing & Appraisal

### Estimates of Sampling Error

Since it is an unavoidable fact that estimates from a sample survey are subject to sampling error, sound statistical practice calls for researchers to provide users with some indication of the magnitude of this sampling error. This section of the documentation outlines the measures of sampling error which Statistics Canada commonly uses and which it urges producing estimates from this microdata file to use also. The basis for measuring the potential size of sampling errors is the standard error of the estimates derived from survey results. However, because of the large variety of estimates that can be produced from a survey, the standard error of an estimate is usually expressed relative to the estimate to which it pertains. This resulting measure, known as the coefficient of variation (CV) of an estimate, is obtained by dividing the standard error of the estimate by the estimate itself and is expressed as a percentage of the estimate. For example, suppose that, based upon the 2010 survey results, one estimates that 21.1% of households did not access the Internet at home (HA\_Q01 = 2, No), and this estimate is found to have a standard error of 0.00328. Then the coefficient of variation of the estimate is calculated as:  $(0.00328/0.211) * 100\% = 1.6\%$ .

## Accessibility

Access Authority	Data Liberation Initiative (Statistics Canada) , <a href="http://www.statcan.gc.ca/dli-idd/dli-idd-eng.htm">http://www.statcan.gc.ca/dli-idd/dli-idd-eng.htm</a> , <a href="mailto:infostats@statcan.gc.ca">infostats@statcan.gc.ca</a>
Contact(s)	Data Liberation Initiative (Statistics Canada) , <a href="http://www.statcan.gc.ca/reference/refcentre-centreref/index-eng.htm">http://www.statcan.gc.ca/reference/refcentre-centreref/index-eng.htm</a> , <a href="mailto:infostats@statcan.gc.ca">infostats@statcan.gc.ca</a>
Distributor(s)	Data Liberation Initiative
Depositor(s)	Data Centre
Access Conditions	
Data Liberation Initiative Community	
Citation Requirements	
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## Files Description

Dataset contains 1 file(s)

cius-2012-person-v2	
# Cases	22615
# Variable(s)	131

## Variables Group(s)

Dataset contains 9 group(s)

Group Administration							
#	Name	Label	Type	Format	Valid	Invalid	Question
1	PUMFID_P	PUMF - Identification number	continuous	numeric-5.0	22615	0	Public use microdata file identification number

Group Current User							
#	Name	Label	Type	Format	Valid	Invalid	Question
1	CU_Q01	Past year, use Internet for personal use	discrete	numeric-1.0	22615	0	Did you use the Internet during the past 12 months for personal use?
2	CU_Q02	How many years have you used the Internet	discrete	numeric-1.0	17547	5068	How many years have you used the Internet? 1
3	CU_Q03	Frequency personal internet use per month	discrete	numeric-1.0	17559	5056	How often do you use the Internet for personal use in a typical month?
4	CU_Q04	Hours per week personal internet use	discrete	numeric-2.0	17483	5132	In a typical week, on average, how many hours do you spend on the Internet for personal use?
5	CU_Q05	Past yr, personal Internet use from home	discrete	numeric-1.0	17508	5107	During the past 12 months, did you use the Internet for personal use: ... from home?
6	CU_Q06	Past yr, personal Internet use from work	discrete	numeric-1.0	17487	5128	(During the past 12 months, did you use the Internet for personal use:) ... from work?
7	CU_G07	Past year, use Internet for personal use	discrete	numeric-1.0	17458	5157	During the past 12 months, did you use the Internet for personal use
8	CU_Q08	Past year, use Internet from library	discrete	numeric-1.0	17498	5117	(During the past 12 months, did you use the Internet for personal use:) ... from a public library?
9	CU_Q09	Past year, use Internet Blackberry/iPhone	discrete	numeric-1.0	17503	5112	(During the past 12 months, did you use the Internet for personal use:) ...with a smart phone, tablet or other wireless handheld device? For example, a Blackberry or iPhone.
10	CU_Q10	Past yr,use Internet friend/family/hotel	discrete	numeric-1.0	17483	5132	During the past 12 months, did you use the Internet for personal use: ... from any other locations (such as a friend's or relative's home or hotel)?
11	CU_Q11A	Internet from relative's home	discrete	numeric-1.0	7787	14828	From what other locations did you use the Internet during the past 12 months? - Relative's home
12	CU_Q11B	Internet from friend's home	discrete	numeric-1.0	7787	14828	From what other locations did you use the Internet during the past 12 months? - Friend's or neighbour's home
13	CU_Q11C	Internet from govt office/department	discrete	numeric-1.0	7787	14828	From what other locations did you use the Internet during the past 12 months? - Government office, department or kiosk (including Community Access Program site)
14	CU_Q11D	Internet from hotspot/café	discrete	numeric-1.0	7787	14828	From what other locations did you use the Internet during the past 12 months? -



#	Name	Label	Type	Format	Valid	Invalid	Question
							Wifi hotspot (including Internet or cyber caf�� or similar)
15	CU_Q11F	Internet from hotel/airport/other office	discrete	numeric-1.0	7787	14828	From what other locations did you use the Internet during the past 12 months? - During travel (including hotel, airport, other office) Universe: CU_Q01 = 1 and CU_Q10=1
16	CU_11G	Internet from what other location	discrete	numeric-1.0	7787	14828	From what other locations did you use the Internet during the past 12 months?
17	CU_Q12A	Reason not use Internet: Cost	discrete	numeric-1.0	4967	17648	What are the reasons you do not use the Internet? - Cost (service or equipment)
18	CU_Q12B	Reason not use Internet: Limited access	discrete	numeric-1.0	4967	17648	What are the reasons you do not use the Internet? - Limited access to a computer
19	CU_Q12C	Reason not use Internet: No need/interest	discrete	numeric-1.0	4967	17648	What are the reasons you do not use the Internet? - No need / no interest / not useful / not enough time
20	CU_Q12D	Reason not use Internet: Lack skills	discrete	numeric-1.0	4967	17648	What are the reasons you do not use the Internet? - Lack of skills or training / Internet or computer too difficult to use
21	CU_Q12H	Reason not use Internet: Age/Seniors	discrete	numeric-1.0	4967	17648	What are the reasons you do not use the Internet? - Age reasons/Seniors
22	CU_12G	Reason not use Internet: Other	discrete	numeric-1.0	4967	17648	Reasons you do not use the Internet? Other

### Group E-Commerce

#	Name	Label	Type	Format	Valid	Invalid	Question
1	EC_Q01	Past yr, order goods/services on Internet	discrete	numeric-1.0	17610	5005	During the past 12 months, did you order any goods or services over the Internet?
2	EC_Q02A	Order software on Internet	discrete	numeric-1.0	9308	13307	During the past 12 months, which of the following types of goods or services did you order? - Software (for example, video games, PC applications)
3	EC_Q02B	Order music on Internet	discrete	numeric-1.0	9308	13307	During the past 12 months, which of the following types of goods or services did you order? - Music (for example, CDs, MP3)
4	EC_Q02C	Order books, etc. Internet	discrete	numeric-1.0	9308	13307	During the past 12 months, which of the following types of goods or services did you order? - Books, magazines, online newspapers
5	EC_Q02D	Order videos or DVDs on Internet	discrete	numeric-1.0	9308	13307	During the past 12 months, which of the following types of goods or services did you order? - Videos or DVDs
6	EC_Q02E	Order memberships on Internet	discrete	numeric-1.0	9308	13307	During the past 12 months, which of the following types of goods or services did you order? - Memberships or registration fees (for example, health clubs, tuition, online television subscriptions)
7	EC_Q02F	Order gift certificates/cards on Internet	discrete	numeric-1.0	9308	13307	During the past 12 months, which of the following types of goods or services did you order? - Gift certificates or gift cards

#	Name	Label	Type	Format	Valid	Invalid	Question
8	EC_Q02G	Order ticket for entertainmnt on Internet	discrete	numeric-1.0	9308	13307	During the past 12 months, which of the following types of goods or services did you order? - Tickets for entertainment events (for example, concerts, movies, sports)
9	EC_Q02H	Order none of the above on Internet	discrete	numeric-1.0	9308	13307	-
10	EC_Q03	Product order from Internet go to comp	discrete	numeric-1.0	7401	15214	Were any of these products delivered directly to your computer over the Internet rather than physically delivered to your home?
11	EC_Q04A	Past year, order computer hardware	discrete	numeric-1.0	9297	13318	During the past 12 months, did you order: - ... computer hardware?
12	EC_Q04B	Past year, order food or beverages	discrete	numeric-1.0	9297	13318	During the past 12 months, did you order: - ... food or beverages? For example, specialty foods or wine, pizza delivery.
13	EC_Q04C	Past year, order prescription drugs	discrete	numeric-1.0	9297	13318	During the past 12 months, did you order: - ... prescription drugs or products? For example, glasses.
14	EC_Q04D	Past year, order health/beauty products	discrete	numeric-1.0	9297	13318	During the past 12 months, did you order: - ... other health or beauty products? For example, vitamins, cosmetics.
15	EC_Q04E	Past year, order clothing/accessories	discrete	numeric-1.0	9297	13318	During the past 12 months, did you order: - ... clothing, jewellery or accessories?
16	EC_Q04F	Past year, order house wares	discrete	numeric-1.0	9297	13318	During the past 12 months, did you order: - ... house wares? For example, large appliances, furniture.
17	EC_Q04G	Past year, order consumer electronics	discrete	numeric-1.0	9297	13318	During the past 12 months, did you order: - ... consumer electronics? For example, cameras, stereos, TVs, DVD players.
18	EC_Q04H	Past year, order travel arrangements	discrete	numeric-1.0	9297	13318	During the past 12 months, did you order: - ... travel arrangements? For example, hotel reservations, travel tickets, rental cars.
19	EC_Q04I	Past year, order sports equipment	discrete	numeric-1.0	9297	13318	During the past 12 months, did you order: - ... sports equipment?
20	EC_Q04J	Past year, order toys and games	discrete	numeric-1.0	9297	13318	During the past 12 months, did you order: - ... toys and games?
21	EC_Q04K	Past year, order home/gardening supplies	discrete	numeric-1.0	9297	13318	During the past 12 months, did you order: - ... home improvement or gardening supplies (including tools)?
22	EC_Q04L	Past year, order photographic services	discrete	numeric-1.0	9297	13318	During the past 12 months, did you order: - ... photographic services?
23	EC_Q04M	Past year, order automotive products	discrete	numeric-1.0	9297	13318	During the past 12 months, did you order: - ... automotive products?
24	EC_Q04N	Past year, order flowers	discrete	numeric-1.0	9297	13318	During the past 12 months, did you order: - ... flowers?
25	EC_Q04O	Past year, order other goods or services	discrete	numeric-1.0	9297	13318	During the past 12 months, did you order: - ... other goods or services? - Specify

#	Name	Label	Type	Format	Valid	Invalid	Question
26	EC_Q04P	Past yr, order no othr goods or services	discrete	numeric-1.0	9297	13318	During the past 12 months, did you order: - No other goods or services
27	EC_Q05A	Order goods/services from Canada	discrete	numeric-1.0	9134	13481	Did you order goods and services from: - ... vendors in Canada?
28	EC_Q05B	Order goods/services from United States	discrete	numeric-1.0	9134	13481	Did you order goods and services from: - ... vendors in the United States?
29	EC_Q05C	Order goods/services from other countries	discrete	numeric-1.0	9134	13481	Did you order goods and services from: - ... vendors in other countries?
30	EC_Q06	How many separate orders did you place over the Internet?	continuous	numeric-3.0	9384	13231	During the past 12 months, how many separate orders did you place over the Internet?
31	EC_Q08	Past yr, estimate cost purchased Internet	continuous	numeric-6.0	9384	13231	During the past 12 months, what was the estimated total cost, in Canadian dollars, of the goods and services you ordered over the Internet?
32	EC_Q10A	Paid with credit card online	discrete	numeric-1.0	9266	13349	During the past 12 months, how did you pay for these goods or services ordered over the Internet? - A credit card online
33	EC_Q10B	Paid with debit card	discrete	numeric-1.0	9266	13349	During the past 12 months, how did you pay for these goods or services ordered over the Internet? - Debit card or electronic bank transfer online
34	EC_Q10C	Paid with online payment service	discrete	numeric-1.0	9266	13349	During the past 12 months, how did you pay for these goods or services ordered over the Internet? - Online payment service such as Paypal or Google Checkout
35	EC_Q10D	Paid with prepaid gift card/voucher	discrete	numeric-1.0	9266	13349	During the past 12 months, how did you pay for these goods or services ordered over the Internet? - Prepaid gift card or online voucher
36	EC_Q10E	Paid with points from rewards programs	discrete	numeric-1.0	9266	13349	During the past 12 months, how did you pay for these goods or services ordered over the Internet? - Points from rewards or redemption programs (for example, Air Miles)
37	EC_Q10F	Payment not made on the Internet	discrete	numeric-1.0	9266	13349	During the past 12 months, how did you pay for these goods or services ordered over the Internet? - Payment not made on the Internet (for example, telephone, mail, COD)
38	EC_Q11	Past year, main reason not order anything	discrete	numeric-2.0	8111	14504	What was the main reason for not ordering any goods or services online during the last 12 months?

### Group Home Access

#	Name	Label	Type	Format	Valid	Invalid	Question
1	HA_Q01	Household have Internet at home	discrete	numeric-1.0	22538	77	[Do you/Does your household] have access to the Internet at home?
2	HA_Q02A	No internet: No need/interest	discrete	numeric-1.0	4468	18147	What are the reasons [you do not/your household does not] have access to the Internet at home? - No need or no interest

#	Name	Label	Type	Format	Valid	Invalid	Question
3	HA_Q02B	No internet: Cost	discrete	numeric-1.0	4468	18147	What are the reasons [you do not/your household does not] have access to the Internet at home? - Cost (service or equipment)
4	HA_Q02C	No internet: Access elsewhere	discrete	numeric-1.0	4468	18147	What are the reasons [you do not/your household does not] have access to the Internet at home? - Have access to the Internet elsewhere (for example, at work, school)
5	HA_Q02D	No internet: Service not meet need	discrete	numeric-1.0	4468	18147	What are the reasons [you do not/your household does not] have access to the Internet at home? - The available service does not meet our needs
6	HA_Q02G	No internet: Lack confidence/skill	discrete	numeric-1.0	4468	18147	What are the reasons [you do not/your household does not] have access to the Internet at home? - Lack of confidence, knowledge, or skills
7	HA_Q02H	No internet: No Internet-ready device	discrete	numeric-1.0	4468	18147	What are the reasons [you do not/your household does not] have access to the Internet at home? - No Internet-ready device (for example, desktop computer) available in dwelling
8	HA_Q02G	No internet: Other	discrete	numeric-1.0	4468	18147	Reason hhld no access to Internet-home?...Other
9	HA_Q03A	Access Internet at home: Desktop computer	discrete	numeric-1.0	18041	4574	Do [you/members of your household] access the Internet at home using : - ... a desktop computer?
10	HA_Q03B	Access Internet at home: Laptop computer	discrete	numeric-1.0	18041	4574	Do [you/members of your household] access the Internet at home using : - ... a laptop computer, including Netbooks?
11	HA_Q03C	Access Internet home: Video games console	discrete	numeric-1.0	18041	4574	Do [you/members of your household] access the Internet at home using : - ... a video game console? For example, Xbox Live or PlayStation 3.
12	HA_Q03D	Access Internet at home:Blackberry/iPhone	discrete	numeric-1.0	18041	4574	Do [you/members of your household] access the Internet at home using : - ... a smart phone, tablet or other wireless handheld device? For example, a Blackberry or iPhone.
13	HA_Q03E	Access Internet at home: Other device	discrete	numeric-1.0	18041	4574	Do [you/members of your household] access the Internet at home using : - ... any other device - specify
14	HA_Q04A	Connected to Internet: Telephone line	discrete	numeric-1.0	17698	4917	Is your household currently connected to the Internet at home by: - ... telephone line?
15	HA_Q04B	Connected to Internet: Cable line	discrete	numeric-1.0	17698	4917	Is your household currently connected to the Internet at home by: - ... cable line?
16	HA_Q04C	Connected to Internet: Satellite dish	discrete	numeric-1.0	17698	4917	Is your household currently connected to the Internet at home by: - ... satellite dish?
17	HA_Q04D	Connected to Internet: Wireless device	discrete	numeric-1.0	17698	4917	Is your household currently connected to the Internet at home by: - ... a wireless device including handheld devices, sticks or fixed wireless?
18	HA_Q04E	Connected to Internet: Other connection	discrete	numeric-1.0	17698	4917	Is your household currently connected to the Internet at home by: - ... any other connection - specify

#	Name	Label	Type	Format	Valid	Invalid	Question
19	HA_Q05A	Wireless connection: Blackberry/iPhone	discrete	numeric-1.0	3491	19124	You mentioned a wireless connection. Excluding wireless routers, is your household currently connected to the Internet at home by: - ... mobile Internet service for a smart phone, tablet or other wireless handheld device? For example, a Blackberry or iPhone.
20	HA_Q05B	Wireless connection: Wireless stick/card	discrete	numeric-1.0	3491	19124	You mentioned a wireless connection. Excluding wireless routers, is your household currently connected to the Internet at home by: - ... wireless stick or card? For example, data or mobile access stick connected to a laptop USB port.
21	HA_Q05C	Wireless connectn:Wireless/Point-to-Point	discrete	numeric-1.0	3491	19124	You mentioned a wireless connection. Excluding wireless routers, is your household currently connected to the Internet at home by: - ... fixed wireless or Point-to-Point? For example, requiring line of sight reception.
22	HA_Q05D	Wireless connection: Other	discrete	numeric-1.0	3491	19124	You mentioned a wireless connection. Excluding wireless routers, is your household currently connected to the Internet at home by: - ... any other wireless connection? - specify
23	HA_Q06	Hhld access internet using high speed	discrete	numeric-1.0	5198	17417	[Do you/Does your household] access the Internet at home using a high speed connection?
24	HA_Q09	High speed Internet in your area	discrete	numeric-1.0	3882	18733	Is there a high speed Internet service available in your area?

## Group LFS Geographic variables

#	Name	Label	Type	Format	Valid	Invalid	Question
1	PROVINCE	Province of respondent	discrete	numeric-2.0	22615	0	Province of respondent
2	REGION	Regions of Canada	discrete	numeric-2.0	22615	0	Regions of Canada
3	G_URBRUR	Characteristic of community where R lives	discrete	numeric-2.0	22615	0	Characteristic of community where the respondent lives

## Group LFS Household demographic variables

#	Name	Label	Type	Format	Valid	Invalid	Question
1	GCAGEGR6	Age of respondent (6 groups)	discrete	numeric-2.0	22615	0	Age of respondent (6 groups)
2	CSEX	Sex of respondent	discrete	numeric-1.0	22615	0	Sex of respondent
3	G_CEDUC	Respondent's highest education level	discrete	numeric-1.0	22615	0	Respondent's highest education level
4	G_CSTUD	Respondent is a student	discrete	numeric-1.0	22615	0	Respondent is a student?
5	G_CLFSST	Detailed labour force status	discrete	numeric-1.0	22615	0	Detailed labour force status
6	GFAMTYPE	Family type	discrete	numeric-1.0	22615	0	-
7	G_HHSIZE	Number of persons in household	discrete	numeric-1.0	22615	0	Number of persons in household
8	G_HEDUC	Highest level education completed in hhld	discrete	numeric-1.0	22615	0	Highest level of education ever completed in the household

#	Name	Label	Type	Format	Valid	Invalid	Question
9	G_HSTUD	Student in household	discrete	numeric-1.0	22615	0	Student in household?
10	G_HQUINT	Household income quintile	discrete	numeric-1.0	22615	0	Household income quintile

### Group Specific Use

#	Name	Label	Type	Format	Valid	Invalid	Question
1	SU_Q01	Use Internet for e-mail	discrete	numeric-1.0	17543	5072	During the past 12 months, have you used the Internet: ... for e-mail?
2	SU_Q02	Use Internet for instant messenger	discrete	numeric-1.0	17481	5134	(During the past 12 months, have you used the Internet:) ... to use an instant messenger? For example, Windows Live Messenger, Yahoo Messenger.
3	SU_Q03	Use Internet to visit government websites	discrete	numeric-1.0	17493	5122	(During the past 12 months, have you used the Internet:) ... to visit or interact with government websites?
4	SU_Q04	Use Internet to search health information	discrete	numeric-1.0	17513	5102	(During the past 12 months, have you used the Internet:) ... to search for medical or health-related information?
5	SU_Q05	Use Internet for education/training	discrete	numeric-1.0	17532	5083	(During the past 12 months, have you used the Internet:) ... for formal education, training or school work?
6	SU_Q06	Use Internet for travel information	discrete	numeric-1.0	17532	5083	During the past 12 months, have you used the Internet: ... for travel information or making travel arrangements?
7	SU_Q07	Use Internet to search for employment	discrete	numeric-1.0	17529	5086	(During the past 12 months, have you used the Internet:) ... to search for employment?
8	SU_Q08	Use Internet for electronic banking	discrete	numeric-1.0	17522	5093	(During the past 12 months, have you used the Internet:) ... for electronic banking? For example, paying bills, viewing statements, transferring funds between accounts.
9	SU_Q09	Use Internet to research investments	discrete	numeric-1.0	17524	5091	(During the past 12 months, have you used the Internet:) ... to research investments?
10	SU_Q10	Use Internet to read or watch the news	discrete	numeric-1.0	17526	5089	(During the past 12 months, have you used the Internet:) ... to read or watch the news?
11	SU_Q11	Use Internet to research community events	discrete	numeric-1.0	17514	5101	During the past 12 months, have you used the Internet: ... to research community events?
12	SU_Q12	Use Internet to window shop	discrete	numeric-1.0	17521	5094	(During the past 12 months, have you used the Internet:) ... to window shop or browse for information on goods or services?
13	SU_Q13	Use Internet to sell goods or services	discrete	numeric-1.0	17517	5098	(During the past 12 months, have you used the Internet:) ... to sell goods or services? For example, through auction sites.
14	SU_Q14	Use Internet to use social networking	discrete	numeric-1.0	17519	5096	(During the past 12 months, have you used the Internet:) ... to use social networking sites? For example, Facebook, Twitter.

#	Name	Label	Type	Format	Valid	Invalid	Question
15	SU_Q15	Use Internet for discussion groups	discrete	numeric-1.0	17513	5102	(During the past 12 months, have you used the Internet:) ... to contribute content or participate in discussion groups? For example, blogging, message boards, posting images or videos.
16	SU_Q16	Use Internet to play online games	discrete	numeric-1.0	17513	5102	During the past 12 months, have you used the Internet: ... to play online games?
17	SU_Q17	Use Internet to obtain or save music	discrete	numeric-1.0	17513	5102	(During the past 12 months, have you used the Internet:) ... to obtain or save music (free or paid downloads)?
18	SU_Q18	Use Internet to obtain or save software	discrete	numeric-1.0	17485	5130	(During the past 12 months, have you used the Internet:) ... to obtain or save software (free or paid downloads)?
19	SU_Q19	Use Internet to listen to radio online	discrete	numeric-1.0	17513	5102	(During the past 12 months, have you used the Internet:) ... to listen to the radio online?
20	SU_Q20	Use Internet to download or watch TV	discrete	numeric-1.0	17508	5107	(During the past 12 months, have you used the Internet:) ... to download or watch TV online?
21	SU_Q21	Use Internet to download or watch movies	discrete	numeric-1.0	17508	5107	During the past 12 months, have you used the Internet: ... to download or watch movies or video clips online?
22	SU_Q22	Use Internet for telephone/video calls	discrete	numeric-1.0	17507	5108	(During the past 12 months, have you used the Internet:) ... to make telephone or video calls online? For example, Skype, FaceTime.

### Group Weight

#	Name	Label	Type	Format	Valid	Invalid	Question
1	WTTP	PUMF - Survey weight of a person	continuous	numeric-10.4	22615	0	Public Use Microdata File - Survey weight of a person, i.e. the number

### Group Privacy and Security

#	Name	Label	Type	Format	Valid	Invalid	Question
1	PS_Q01	Concerned banking over the Internet	discrete	numeric-1.0	17343	5272	How concerned ^AREYOU01 about conducting banking transactions over the Internet?
2	PS_Q02	Concerned using credit card over Internet	discrete	numeric-1.0	17372	5243	How concerned ^AREYOU02 about using your credit card over the Internet?
3	PS_Q03	Use security software to protect computer	discrete	numeric-1.0	16939	5676	Do you currently use any security software to protect your computer or other devices you use to access the Internet?
4	PS_Q04	Use free versions of Internet security	discrete	numeric-1.0	13101	9514	Do you currently use any free versions of Internet security software?
5	PS_Q05	Frequency back up files electronically	discrete	numeric-1.0	17183	5432	How often do you back up files electronically (for example, documents, spreadsheets or pictures)?
6	PS_Q06	Frequently delete your browser history	discrete	numeric-1.0	17170	5445	How frequently do you delete your browser history?

#	Name	Label	Type	Format	Valid	Invalid	Question
7	PS_Q07	Receive email request personal finances	discrete	numeric-1.0	17158	5457	Have you ever: ... received emails requesting personal financial information (such as bank account numbers or passwords) from a fraudulent source?
8	PS_Q08	Experience misuse personal info-Internet	discrete	numeric-1.0	17354	5261	Have you ever: ... experienced misuse of personal information on the Internet (for example, misuse of pictures, videos or personal data uploaded on public websites)?
9	PS_Q09	Had a computer virus	discrete	numeric-1.0	17192	5423	Have you ever: ... had a computer virus?
10	PS_Q10	Virus lose information/damage software	discrete	numeric-1.0	10082	12533	Did the virus (or viruses) result in the loss of information or damage to software?



# Variables Description

Dataset contains 131 variable(s)

## File : cius-2012-person-v2

### # PUMFID\_P: PUMF - Identification number

Information	[Type= continuous] [Format=numeric] [Range= 2581-25195] [Missing=*]
Statistics [NW/ W]	[Valid=22615 / 28056999.996 ] [Invalid=0 / 0 ] [Mean=13888 / 13847.262 ] [StdDev=6528.533 / 6529.844 ]
Literal question	Public use microdata file identification number

### # PROVINCE: Province of respondent

Information	[Type= discrete] [Format=numeric] [Range= 10-59] [Missing=*]
Statistics [NW/ W]	[Valid=22615 / 28056999.996 ] [Invalid=0 / 0 ]
Universe	All respondents
Literal question	Province of respondent
Notes	Information from the Labour Force Survey file (LFS)

Value	Label	Cases	Weighted	Percentage (Weighted)
10	Newfoundland&Labrador	867	422363.0	1.5%
11	Prince Edward Island	605	118891.0	0.4%
12	Nova Scotia	1334	770654.0	2.7%
13	New Brunswick	1183	612123.0	2.2%
24	Quebec	4052	6575211.0	23.4%
35	Ontario	5808	10962764.0	39.1%
46	Manitoba	2273	951544.0	3.4%
47	Saskatchewan	1820	804111.0	2.9%
48	Alberta	2263	3060280.0	10.9%
59	British Columbia	2410	3779059.0	13.5%
96	Valid skip	0	0.0	
97	Don't know	0	0.0	
98	Refusal	0	0.0	
99	Not stated	0	0.0	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # REGION: Regions of Canada

Information	[Type= discrete] [Format=numeric] [Range= 1-6] [Missing=*]
Statistics [NW/ W]	[Valid=22615 / 28056999.996 ] [Invalid=0 / 0 ]
Universe	All respondents
Literal question	Regions of Canada
Notes	Information derived from the Labour Force Survey file (LFS).

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Atlantic Region	3989	1924031.0	6.9%
2	Quebec	4052	6575211.0	23.4%
3	Ontario	5808	10962764.0	39.1%
4	Manitoba/Saskatchewan	4093	1755655.0	6.3%
5	Alberta	2263	3060280.0	10.9%
6	British Columbia	2410	3779059.0	13.5%
96	Valid skip	0	0.0	
97	Don't know	0	0.0	

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### # REGION: Regions of Canada

Value	Label	Cases	Weighted	Percentage (Weighted)
98	Refusal	0	0.0	
99	Not stated	0	0.0	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # G\_URBRUR: Characteristic of community where R lives

Information	[Type= discrete] [Format=numeric] [Range= 1-6] [Missing=*]
Statistics [NW/ W]	[Valid=22615 / 28056999.996 ] [Invalid=0 / 0 ]
Literal question	Characteristic of community where the respondent lives

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Montreal	904	3246649.0	11.6%
2	Toronto	872	4870708.0	17.4%
3	Vancouver	844	2043480.0	7.3%
4	Other Urban(excl PEI)	12352	11976861.8	42.7%
5	Rural (excl PEI)	7038	5800410.2	20.7%
6	Prince Edward Island	605	118891.0	0.4%
96	Valid skip	0	0.0	
97	Don't know	0	0.0	
98	Refusal	0	0.0	
99	Not stated	0	0.0	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # GCAGEGR6: Age of respondent (6 groups)

Information	[Type= discrete] [Format=numeric] [Range= 1-6] [Missing=*]
Statistics [NW/ W]	[Valid=22615 / 28056999.996 ] [Invalid=0 / 0 ]
Literal question	Age of respondent (6 groups)

Value	Label	Cases	Weighted	Percentage (Weighted)
1	16 to 24	1814	4070691.0	14.5%
2	25 to 34	3198	4737890.0	16.9%
3	35 to 44	3520	4579161.0	16.3%
4	45 to 54	4007	5260552.0	18.7%
5	55 to 64	4420	4453169.0	15.9%
6	65 and older	5656	4955537.0	17.7%
96	Valid skip	0	0.0	
97	Don't know	0	0.0	
98	Refusal	0	0.0	
99	Not stated	0	0.0	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # CSEX: Sex of respondent

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=22615 / 28056999.996 ] [Invalid=0 / 0 ]
Literal question	Sex of respondent

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## # CSEX: Sex of respondent

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Male	10135	13821744.0	49.3%
2	Female	12480	14235256.0	50.7%
6	Valid skip	0	0.0	
7	Don't know	0	0.0	
8	Refusal	0	0.0	
9	Not stated	0	0.0	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

## # G\_CEDUC: Respondent's highest education level

Information	[Type= discrete] [Format=numeric] [Range= 1-3] [Missing=*]
Statistics [NW/ W]	[Valid=22615 / 28056999.996 ] [Invalid=0 / 0 ]
Literal question	Respondent's highest education level

Value	Label	Cases	Weighted	Percentage (Weighted)
1	High school or less	8740	10427192.3	37.2%
2	College/some postsecond	9371	10983609.9	39.1%
3	Uni certificate/degree	4504	6646197.7	23.7%
6	Valid skip	0	0.0	
7	Don't know	0	0.0	
8	Refusal	0	0.0	
9	Not stated	0	0.0	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

## # G\_CSTUD: Respondent is a student

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=22615 / 28056999.996 ] [Invalid=0 / 0 ]
Literal question	Respondent is a student?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	1548	3430925.6	12.2%
2	No	21067	24626074.4	87.8%
6	Valid skip	0	0.0	
7	Don't know	0	0.0	
8	Refusal	0	0.0	
9	Not stated	0	0.0	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

## # G\_CLFSST: Detailed labour force status

Information	[Type= discrete] [Format=numeric] [Range= 1-3] [Missing=*]
Statistics [NW/ W]	[Valid=22615 / 28056999.996 ] [Invalid=0 / 0 ]
Literal question	Detailed labour force status

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Employed	13248	17941218.3	63.9%
2	Unemployed	829	1264652.7	4.5%

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### # G\_CLFSST: Detailed labour force status

Value	Label	Cases	Weighted	Percentage (Weighted)
3	Not in labour force	8538	8851129.0	31.5%
6	Valid skip	0	0.0	
7	Don't know	0	0.0	
8	Refusal	0	0.0	
9	Not stated	0	0.0	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # GFAMTYPE: Family type

Information	[Type= discrete] [Format=numeric] [Range= 1-4] [Missing=*]
Statistics [NW/ W]	[Valid=22615 / 28056999.996 ] [Invalid=0 / 0 ]

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Single family hhld w/kids	5282	7251286.0	25.8%
2	Single family hhld w/o kids	10167	14918641.1	53.2%
3	One person households	6369	3919123.4	14.0%
4	Multi fam households	797	1967949.4	7.0%
6	Valid skip	0	0.0	
7	Don't know	0	0.0	
8	Refusal	0	0.0	
9	Not stated	0	0.0	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # G\_HHSIZE: Number of persons in household

Information	[Type= discrete] [Format=numeric] [Range= 1-4] [Missing=*]
Statistics [NW/ W]	[Valid=22615 / 28056999.996 ] [Invalid=0 / 0 ]
Literal question	Number of persons in household

Value	Label	Cases	Weighted	Percentage (Weighted)
1	1 person	6369	3919123.4	14.0%
2	2 persons	8645	9778998.1	34.9%
3	3 persons	3186	5550738.4	19.8%
4	4 or more persons	4415	8808140.0	31.4%
6	Valid skip	0	0.0	
7	Don't know	0	0.0	
8	Refusal	0	0.0	
9	Not stated	0	0.0	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # G\_HEDUC: Highest level education completed in hhld

Information	[Type= discrete] [Format=numeric] [Range= 1-3] [Missing=*]
Statistics [NW/ W]	[Valid=22615 / 28056999.996 ] [Invalid=0 / 0 ]
Literal question	Highest level of education ever completed in the household

Value	Label	Cases	Weighted	Percentage (Weighted)
1	High school or less	5887	5519674.1	19.7%

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### # G\_HEDUC: Highest level education completed in hhld

Value	Label	Cases	Weighted	Percentage (Weighted)
2	College/some postsecond	10442	12466542.8	44.4%
3	University cert/degree	6286	10070783.1	35.9%
6	Valid skip	0	0.0	
7	Don't know	0	0.0	
8	Refusal	0	0.0	
9	Not stated	0	0.0	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # G\_HSTUD: Student in household

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=22615 / 28056999.996 ] [Invalid=0 / 0 ]
Literal question	Student in household?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	3703	7941791.4	28.3%
2	No	18912	20115208.6	71.7%
6	Valid skip	0	0.0	
7	Don't know	0	0.0	
8	Refusal	0	0.0	
9	Not stated	0	0.0	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # CU\_Q01: Past year, use Internet for personal use

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=22615 / 28056999.996 ] [Invalid=0 / 0 ]
Universe	All respondents
Pre-question	Concept: Did you use Internet during past 12 months for personal use?
Literal question	Did you use the Internet during the past 12 months for personal use?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	17610	23404221.2	83.4%
2	No	5005	4652778.8	16.6%
6	Valid skip	0	0.0	
7	Don't know	0	0.0	
8	Refusal	0	0.0	
9	Not stated	0	0.0	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # CU\_Q02: How many years have you used the Internet

Information	[Type= discrete] [Format=numeric] [Range= 1-5] [Missing=*]
Statistics [NW/ W]	[Valid=17547 / 23313017.146 ] [Invalid=5068 / 4743982.85 ]
Universe	CU_Q01 =
Pre-question	Concept: How many years have you used the Internet?
Literal question	How many years have you used the Internet? 1

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## # CU\_Q02: How many years have you used the Internet

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Less than 1 year	379	475710.4	2.0%
2	1 to less than 2 yrs	604	650180.9	2.8%
3	2 to less than 5 yrs	2147	2466607.9	10.6%
4	5 to less than 10 yrs	4967	6763282.5	29.0%
5	10 or more years	9450	12957235.5	55.6%
6	Valid skip	5005	4652778.8	
7	Don't know	46	70660.4	
8	Refusal	2	3516.1	
9	Not stated	15	17027.6	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

## # CU\_Q03: Frequency personal internet use per month

Information	[Type= discrete] [Format=numeric] [Range= 1-4] [Missing=*]
Statistics [NW/ W]	[Valid=17559 / 23347594.689 ] [Invalid=5056 / 4709405.308 ]
Universe	CU_Q01 = 1
Pre-question	Concept: How often do you use Internet for personal use in a month?
Literal question	How often do you use the Internet for personal use in a typical month?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	At least once a day	13623	18682825.3	80.0%
2	At least once a week	2989	3668940.5	15.7%
3	At least once a month	642	683351.8	2.9%
4	< once a month	305	312477.1	1.3%
6	Valid skip	5005	4652778.8	
7	Don't know	25	29513.1	
8	Refusal	3	1447.6	
9	Not stated	23	25665.8	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

## # CU\_Q04: Hours per week personal internet use

Information	[Type= discrete] [Format=numeric] [Range= 1-6] [Missing=*]
Statistics [NW/ W]	[Valid=17483 / 23273997.783 ] [Invalid=5132 / 4783002.214 ]
Universe	Universe: CU_Q01 = 1
Pre-question	Concept: Weekly average hrs you spend on Internet for personal use?
Literal question	In a typical week, on average, how many hours do you spend on the Internet for personal use?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Less than 5 hours	7921	9808900.1	42.1%
2	5 to less than 10 hrs	4670	6173017.4	26.5%
3	10 to less than 20 hrs	2983	4249899.6	18.3%
4	20 to less than 30 hrs	1114	1752417.4	7.5%
5	30 to less than 40 hrs	386	649460.7	2.8%
6	40 or more hours	409	640302.6	2.8%

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### # CU\_Q04: Hours per week personal internet use

Value	Label	Cases	Weighted	Percentage (Weighted)
96	Valid skip	5005	4652778.8	
97	Don't know	94	94487.6	
98	Refusal	4	3596.8	
99	Not stated	29	32138.9	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # CU\_Q05: Past yr, personal Internet use from home

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17508 / 23269533.263 ] [Invalid=5107 / 4787466.733 ]
Universe	CU_Q01 = 1
Pre-question	Concept: Past 12 mnths, use Internet for personal use: ... home? Question Text: During the past 12 months, did you use the Internet for personal use: ... from home? Universe: CU_Q01 = 1
Literal question	During the past 12 months, did you use the Internet for personal use: ... from home?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	16798	22557406.7	96.9%
2	No	710	712126.6	3.1%
6	Valid skip	5005	4652778.8	
7	Don't know	1	3683.0	
8	Refusal	2	1017.4	
9	Not stated	99	129987.5	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # CU\_Q06: Past yr, personal Internet use from work

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17487 / 23243831.521 ] [Invalid=5128 / 4813168.475 ]
Universe	CU_Q01 = 1
Pre-question	Concept: Past 12 months, use Internet for personal use: ... work?
Literal question	(During the past 12 months, did you use the Internet for personal use:) ... from work?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	6303	9259105.5	39.8%
2	No	11184	13984726.0	60.2%
6	Valid skip	5005	4652778.8	
7	Don't know	19	25303.6	
8	Refusal	4	3774.0	
9	Not stated	100	131312.1	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # CU\_G07: Past year, use Internet for personal use

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17458 / 23214315.078 ] [Invalid=5157 / 4842684.919 ]
Literal question	During the past 12 months, did you use the Internet for personal use

Value	Label	Cases	Weighted	Percentage (Weighted)
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## File : cius-2012-person-v2

### # CU\_G07: Past year, use Internet for personal use

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	1914	3999827.3	17.2%
2	No	15544	19214487.8	82.8%
6	Valid skip	5005	4652778.8	
7	Don't know	9	23612.0	
8	Refusal	2	1017.4	
9	Not stated	141	165276.7	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # CU\_Q08: Past year, use Internet from library

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17498 / 23264008.649 ] [Invalid=5117 / 4792991.347 ]
Universe	CU_Q01 = 1
Pre-question	Concept: Past 12 mths use Internet - personal use ... public library?
Literal question	(During the past 12 months, did you use the Internet for personal use;) ... from a public library?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	1604	2708314.4	11.6%
2	No	15894	20555694.2	88.4%
6	Valid skip	5005	4652778.8	
7	Don't know	6	6676.6	
8	Refusal	3	1215.4	
9	Not stated	103	132320.5	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # CU\_Q09: Past year, use Internet Blackberry/iPhone

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17503 / 23269904.222 ] [Invalid=5112 / 4787095.775 ]
Universe	CU_Q01 = 1
Pre-question	Concept: Past 12 mths use Internet - personal ... BlackBerry, iPhone?
Literal question	(During the past 12 months, did you use the Internet for personal use;) ...with a smart phone, tablet or other wireless handheld device? For example, a Blackberry or iPhone.

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	8917	13581133.2	58.4%
2	No	8586	9688771.0	41.6%
6	Valid skip	5005	4652778.8	
7	Don't know	1	781.0	
8	Refusal	2	1017.4	
9	Not stated	104	132518.5	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # CU\_Q10: Past yr,use Internet friend/family/hotel

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17483 / 23223547.579 ] [Invalid=5132 / 4833452.418 ]

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### # CU\_Q10: Past yr,use Internet friend/family/hotel

Universe	CU_Q01 = 1
Pre-question	Concept: Use Internet - from what other locations? friend, relative or hotel
Literal question	During the past 12 months, did you use the Internet for personal use: ... from any other locations (such as a friend's or relative's home or hotel)?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	7810	11276285.5	48.6%
2	No	9673	11947262.1	51.4%
6	Valid skip	5005	4652778.8	
7	Don't know	20	31224.5	
8	Refusal	2	1017.4	
9	Not stated	105	148431.7	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # CU\_Q11A: Internet from relative's home

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=7787 / 11240744.377 ] [Invalid=14828 / 16816255.619 ]
Universe	CU_Q01 = 1 and CU_Q10=1
Pre-question	Concept: From what other locations? relative's home
Literal question	From what other locations did you use the Internet during the past 12 months? - Relative's home

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	3828	5191991.0	46.2%
2	No	3959	6048753.4	53.8%
6	Valid skip	14678	16600041.0	
7	Don't know	21	28626.7	
8	Refusal	1	2377.5	
9	Not stated	128	185210.5	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # CU\_Q11B: Internet from friend's home

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=7787 / 11240744.377 ] [Invalid=14828 / 16816255.619 ]
Universe	CU_Q01 = 1 and CU_Q10=1
Pre-question	Concept: What other locations? - Friend's or neighbour home
Literal question	From what other locations did you use the Internet during the past 12 months? - Friend's or neighbour's home

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	3517	5503905.4	49.0%
2	No	4270	5736839.0	51.0%
6	Valid skip	14678	16600041.0	
7	Don't know	21	28626.7	
8	Refusal	1	2377.5	
9	Not stated	128	185210.5	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

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### # CU\_Q11C: Internet from govt office/department

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=7787 / 11240744.377 ] [Invalid=14828 / 16816255.619 ]
Universe	CU_Q01 = 1 and CU_Q10=1
Pre-question	Concept: From what other locations? - Government office, department or kiosk
Literal question	From what other locations did you use the Internet during the past 12 months? - Government office, department or kiosk (including Community Access Program site)

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	195	253943.3	2.3%
2	No	7592	10986801.1	97.7%
6	Valid skip	14678	16600041.0	
7	Don't know	21	28626.7	
8	Refusal	1	2377.5	
9	Not stated	128	185210.5	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # CU\_Q11D: Internet from hotspot/caf  

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=7787 / 11240744.377 ] [Invalid=14828 / 16816255.619 ]
Universe	Universe: CU_Q01 = 1 and CU_Q10=1
Pre-question	Concept: From what other locations? Wifi hotspot, Internet or cyber caf��
Literal question	From what other locations did you use the Internet during the past 12 months? - Wifi hotspot (including Internet or cyber caf�� or similar)

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	1981	3480969.4	31.0%
2	No	5806	7759775.0	69.0%
6	Valid skip	14678	16600041.0	
7	Don't know	21	28626.7	
8	Refusal	1	2377.5	
9	Not stated	128	185210.5	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # CU\_Q11F: Internet from hotel/airport/other office

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=7787 / 11240744.377 ] [Invalid=14828 / 16816255.619 ]
Universe	CU_Q01 = 1 and CU_Q10=1
Pre-question	Concept: From what other locations? During travel hotel, airport, other office
Literal question	From what other locations did you use the Internet during the past 12 months? - During travel (including hotel, airport, other office) Universe: CU_Q01 = 1 and CU_Q10=1

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	3627	5153700.1	45.8%
2	No	4160	6087044.3	54.2%
6	Valid skip	14678	16600041.0	

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## # CU\_Q11F: Internet from hotel/airport/other office

Value	Label	Cases	Weighted	Percentage (Weighted)
7	Don't know	21	28626.7	
8	Refusal	1	2377.5	
9	Not stated	128	185210.5	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

## # CU\_11G: Internet from what other location

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=7787 / 11240744.377 ] [Invalid=14828 / 16816255.619 ]
Literal question	From what other locations did you use the Internet during the past 12 months?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	287	426368.1	3.8%
2	No	7500	10814376.3	96.2%
6	Valid skip	14678	16600041.0	
7	Don't know	0	0.0	
8	Refusal	0	0.0	
9	Not stated	150	216214.7	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

## # CU\_Q12A: Reason not use Internet: Cost

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=4967 / 4592082.877 ] [Invalid=17648 / 23464917.119 ]
Universe	CU_Q01 = 2
Pre-question	Concept: Reasons you do not use the Internet? - Cost
Literal question	What are the reasons you do not use the Internet? - Cost (service or equipment)

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	461	360408.7	7.8%
2	No	4506	4231674.1	92.2%
6	Valid skip	17610	23404221.2	
7	Don't know	19	26994.3	
8	Refusal	3	2422.3	
9	Not stated	16	31279.3	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

## # CU\_Q12B: Reason not use Internet: Limited access

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=4967 / 4592082.877 ] [Invalid=17648 / 23464917.119 ]
Universe	CU_Q01 = 2
Pre-question	Concept: Reasons you do not use the Internet? - Limited access to a computer
Literal question	What are the reasons you do not use the Internet? - Limited access to a computer

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	478	365727.5	8.0%
2	No	4489	4226355.4	92.0%

## File : cius-2012-person-v2

### # CU\_Q12B: Reason not use Internet: Limited access

Value	Label	Cases	Weighted	Percentage (Weighted)
6	Valid skip	17610	23404221.2	
7	Don't know	19	26994.3	
8	Refusal	3	2422.3	
9	Not stated	16	31279.3	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # CU\_Q12C: Reason not use Internet: No need/interest

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=4967 / 4592082.877 ] [Invalid=17648 / 23464917.119 ]
Universe	CU_Q01 = 2
Pre-question	Concept: Reasons - No need / no interest / not useful / not enough time
Literal question	What are the reasons you do not use the Internet? - No need / no interest / not useful / not enough time

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	3380	3092052.2	67.3%
2	No	1587	1500030.7	32.7%
6	Valid skip	17610	23404221.2	
7	Don't know	19	26994.3	
8	Refusal	3	2422.3	
9	Not stated	16	31279.3	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # CU\_Q12D: Reason not use Internet: Lack skills

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=4967 / 4592082.877 ] [Invalid=17648 / 23464917.119 ]
Universe	CU_Q01 = 2
Pre-question	Concept: Reasons Lack of skills /training /Internet or computer too difficult
Literal question	What are the reasons you do not use the Internet? - Lack of skills or training / Internet or computer too difficult to use

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	1119	1107096.5	24.1%
2	No	3848	3484986.4	75.9%
6	Valid skip	17610	23404221.2	
7	Don't know	19	26994.3	
8	Refusal	3	2422.3	
9	Not stated	16	31279.3	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # CU\_Q12H: Reason not use Internet: Age/Seniors

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=4967 / 4592082.877 ] [Invalid=17648 / 23464917.119 ]
Universe	CU_Q01 = 2
Pre-question	Concept: Reasons- Age /Seniors
Literal question	What are the reasons you do not use the Internet? - Age reasons/Seniors

## File : cius-2012-person-v2

### # CU\_Q12H: Reason not use Internet: Age/Seniors

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	429	337712.3	7.4%
2	No	4538	4254370.6	92.6%
6	Valid skip	17610	23404221.2	
7	Don't know	19	26994.3	
8	Refusal	3	2422.3	
9	Not stated	16	31279.3	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # CU\_12G: Reason not use Internet: Other

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=4967 / 4592082.877 ] [Invalid=17648 / 23464917.119 ]
Literal question	Reasons you do not use the Internet? Other

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	389	370481.7	8.1%
2	No	4578	4221601.2	91.9%
6	Valid skip	17610	23404221.2	
7	Don't know	0	0.0	
8	Refusal	0	0.0	
9	Not stated	38	60696.0	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # SU\_Q01: Use Internet for e-mail

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17543 / 23309434.358 ] [Invalid=5072 / 4747565.638 ]
Universe	CU_Q01 = 1
Literal question	During the past 12 months, have you used the Internet: ... for e-mail?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	16098	21686333.7	93.0%
2	No	1445	1623100.7	7.0%
6	Valid skip	5005	4652778.8	
7	Don't know	4	2932.9	
8	Refusal	2	1769.4	
9	Not stated	61	90084.5	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # SU\_Q02: Use Internet for instant messenger

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17481 / 23233583.189 ] [Invalid=5134 / 4823416.807 ]
Universe	CU_Q01 = 1
Literal question	(During the past 12 months, have you used the Internet:) ... to use an instant messenger? For example, Windows Live Messenger, Yahoo Messenger.

Value	Label	Cases	Weighted	Percentage (Weighted)
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## File : cius-2012-person-v2

### # SU\_Q02: Use Internet for instant messenger

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	6276	9209407.9	39.6%
2	No	11205	14024175.2	60.4%
6	Valid skip	5005	4652778.8	
7	Don't know	62	75074.9	
8	Refusal	3	2515.8	
9	Not stated	64	93047.3	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # SU\_Q03: Use Internet to visit government websites

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17493 / 23251110.413 ] [Invalid=5122 / 4805889.583 ]
Universe	CU_Q01 = 1
Literal question	(During the past 12 months, have you used the Internet:) ... to visit or interact with government websites?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	10433	14567290.3	62.7%
2	No	7060	8683820.1	37.3%
6	Valid skip	5005	4652778.8	
7	Don't know	46	54888.7	
8	Refusal	4	3141.0	
9	Not stated	67	95081.0	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # SU\_Q04: Use Internet to search health information

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17513 / 23268636.595 ] [Invalid=5102 / 4788363.401 ]
Universe	CU_Q01=1
Literal question	(During the past 12 months, have you used the Internet:) ... to search for medical or health-related information?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	11524	15541645.2	66.8%
2	No	5989	7726991.4	33.2%
6	Valid skip	5005	4652778.8	
7	Don't know	25	36997.6	
8	Refusal	4	3141.0	
9	Not stated	68	95446.0	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # SU\_Q05: Use Internet for education/training

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17532 / 23274005.903 ] [Invalid=5083 / 4782994.093 ]
Universe	CU_Q01=1
Literal question	(During the past 12 months, have you used the Internet:) ... for formal education, training or school work?

## File : cius-2012-person-v2

### # SU\_Q05: Use Internet for education/training

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	4966	8524636.1	36.6%
2	No	12566	14749369.8	63.4%
6	Valid skip	5005	4652778.8	
7	Don't know	5	31713.8	
8	Refusal	4	2762.6	
9	Not stated	69	95738.8	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # SU\_Q06: Use Internet for travel information

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17532 / 23300581.897 ] [Invalid=5083 / 4756418.099 ]
Universe	CU_Q01=1
Literal question	During the past 12 months, have you used the Internet: ... for travel information or making travel arrangements?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	11277	15477029.3	66.4%
2	No	6255	7823552.6	33.6%
6	Valid skip	5005	4652778.8	
7	Don't know	3	3554.3	
8	Refusal	4	2762.6	
9	Not stated	71	97322.4	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # SU\_Q07: Use Internet to search for employment

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17529 / 23293470.912 ] [Invalid=5086 / 4763529.084 ]
Universe	CU_Q01=1
Literal question	(During the past 12 months, have you used the Internet:) ... to search for employment?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	5235	8298062.9	35.6%
2	No	12294	14995408.0	64.4%
6	Valid skip	5005	4652778.8	
7	Don't know	4	8329.1	
8	Refusal	3	2515.8	
9	Not stated	74	99905.3	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # SU\_Q08: Use Internet for electronic banking

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17522 / 23290994.928 ] [Invalid=5093 / 4766005.069 ]
Universe	CU_Q01=1
Literal question	(During the past 12 months, have you used the Internet:) ... for electronic banking? For example, paying bills, viewing statements, transferring funds between accounts.



## File : cius-2012-person-v2

### # SU\_Q08: Use Internet for electronic banking

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	12146	16772546.8	72.0%
2	No	5376	6518448.2	28.0%
6	Valid skip	5005	4652778.8	
7	Don't know	5	8489.6	
8	Refusal	7	4426.1	
9	Not stated	76	100310.5	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # SU\_Q09: Use Internet to research investments

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17524 / 23294535.11 ] [Invalid=5091 / 4762464.886 ]
Universe	CU_Q01=1
Literal question	(During the past 12 months, have you used the Internet:) ... to research investments?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	4230	6173736.8	26.5%
2	No	13294	17120798.3	73.5%
6	Valid skip	5005	4652778.8	
7	Don't know	5	5682.2	
8	Refusal	5	3693.3	
9	Not stated	76	100310.5	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # SU\_Q10: Use Internet to read or watch the news

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17526 / 23298779.611 ] [Invalid=5089 / 4758220.386 ]
Universe	CU_Q01=1
Literal question	(During the past 12 months, have you used the Internet:) ... to read or watch the news?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	11743	16456376.7	70.6%
2	No	5783	6842402.9	29.4%
6	Valid skip	5005	4652778.8	
7	Don't know	3	1437.7	
8	Refusal	5	3693.3	
9	Not stated	76	100310.5	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # SU\_Q11: Use Internet to research community events

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17514 / 23273975.705 ] [Invalid=5101 / 4783024.291 ]
Universe	CU_Q01=1
Literal question	During the past 12 months, have you used the Internet: ... to research community events?

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### # SU\_Q11: Use Internet to research community events

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	9836	13454201.7	57.8%
2	No	7678	9819774.0	42.2%
6	Valid skip	5005	4652778.8	
7	Don't know	13	24085.0	
8	Refusal	5	3693.3	
9	Not stated	78	102467.2	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # SU\_Q12: Use Internet to window shop

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17521 / 23294302.118 ] [Invalid=5094 / 4762697.878 ]
Universe	CU_Q01=1
Literal question	(During the past 12 months, have you used the Internet:) ... to window shop or browse for information on goods or services?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	13018	17848016.6	76.6%
2	No	4503	5446285.5	23.4%
6	Valid skip	5005	4652778.8	
7	Don't know	5	3449.1	
8	Refusal	5	3693.3	
9	Not stated	79	102776.6	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # SU\_Q13: Use Internet to sell goods or services

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17517 / 23291517.151 ] [Invalid=5098 / 4765482.845 ]
Universe	CU_Q01=1
Literal question	(During the past 12 months, have you used the Internet:) ... to sell goods or services? For example, through auction sites.

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	4032	5432229.3	23.3%
2	No	13485	17859287.9	76.7%
6	Valid skip	5005	4652778.8	
7	Don't know	5	1485.0	
8	Refusal	6	3918.6	
9	Not stated	82	107300.4	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # SU\_Q14: Use Internet to use social networking

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17519 / 23291321.177 ] [Invalid=5096 / 4765678.819 ]
Universe	CU_Q01=1
Literal question	(During the past 12 months, have you used the Internet:) ... to use social networking sites? For example, Facebook, Twitter

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### # SU\_Q14: Use Internet to use social networking

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	11128	15600644.7	67.0%
2	No	6391	7690676.4	33.0%
6	Valid skip	5005	4652778.8	
7	Don't know	3	1680.9	
8	Refusal	6	3918.6	
9	Not stated	82	107300.4	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

### # SU\_Q15: Use Internet for discussion groups

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17513 / 23279070.129 ] [Invalid=5102 / 4777929.867 ]
Universe	CU_Q01=1
Literal question	(During the past 12 months, have you used the Internet:) ... to contribute content or participate in discussion groups? For example, blogging, message boards, posting images or videos.

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	3435	5591152.7	24.0%
2	No	14078	17687917.4	76.0%
6	Valid skip	5005	4652778.8	
7	Don't know	8	9472.6	
8	Refusal	6	3918.6	
9	Not stated	83	111759.8	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# SU_Q16: Use Internet to play online games				
Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]	[Valid=17513 / 23284232.884 ] [Invalid=5102 / 4772767.112 ]			
Universe	CU_Q01=1			
Literal question	During the past 12 months, have you used the Internet: ... to play online games?			
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	5917	8126581.5	34.9%
2	No	11596	15157651.4	65.1%
6	Valid skip	5005	4652778.8	
7	Don't know	5	2129.3	
8	Refusal	5	3172.2	
9	Not stated	87	114686.7	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# SU_Q17: Use Internet to obtain or save music				
Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]	[Valid=17513 / 23283147.449 ] [Invalid=5102 / 4773852.547 ]			
Universe	CU_Q01=1			
Literal question	(During the past 12 months, have you used the Internet:) ... to obtain or save music (free or paid downloads)?			
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	7744	11754418.8	50.5%
2	No	9769	11528728.7	49.5%
6	Valid skip	5005	4652778.8	
7	Don't know	5	3214.7	
8	Refusal	5	3172.2	
9	Not stated	87	114686.7	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# SU_Q18: Use Internet to obtain or save software				
Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]	[Valid=17485 / 23251145.402 ] [Invalid=5130 / 4805854.594 ]			
Universe	CU_Q01=1			
Literal question	(During the past 12 months, have you used the Internet:) ... to obtain or save software (free or paid downloads)?			
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	5777	8877070.0	38.2%
2	No	11708	14374075.4	61.8%
6	Valid skip	5005	4652778.8	
7	Don't know	31	34043.2	
8	Refusal	5	3172.2	
9	Not stated	89	115860.3	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# SU_Q19: Use Internet to listen to radio online				
Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]	[Valid=17513 / 23284414.445 ] [Invalid=5102 / 4772585.551 ]			

# SU_Q19: Use Internet to listen to radio online					
Universe		CU_Q01=1			
Literal question		(During the past 12 months, have you used the Internet:) ... to listen to the radio online?			
Value	Label	Cases	Weighted	Percentage (Weighted)	
1	Yes	6336	8895963.0	38.2%	
2	No	11177	14388451.4	61.8%	
6	Valid skip	5005	4652778.8		
7	Don't know	2	286.4		
8	Refusal	5	3172.2		
9	Not stated	90	116348.1		
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.					
# SU_Q20: Use Internet to download or watch TV					
Information		[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]		[Valid=17508 / 23268002.623 ] [Invalid=5107 / 4788997.374 ]			
Universe		CU_Q01=1			
Literal question		(During the past 12 months, have you used the Internet:) ... to download or watch TV online?			
Value	Label	Cases	Weighted	Percentage (Weighted)	
1	Yes	5889	9076542.6	39.0%	
2	No	11619	14191460.1	61.0%	
6	Valid skip	5005	4652778.8		
7	Don't know	5	12901.3		
8	Refusal	7	6969.2		
9	Not stated	90	116348.1		
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.					
# SU_Q21: Use Internet to download or watch movies					
Information		[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]		[Valid=17508 / 23277550.137 ] [Invalid=5107 / 4779449.86 ]			
Universe		CU_Q01=1			
Literal question		During the past 12 months, have you used the Internet: ... to download or watch movies or video clips online?			
Value	Label	Cases	Weighted	Percentage (Weighted)	
1	Yes	8407	12607964.8	54.2%	
2	No	9101	10669585.4	45.8%	
6	Valid skip	5005	4652778.8		
7	Don't know	6	5530.2		
8	Refusal	6	4792.8		
9	Not stated	90	116348.1		
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.					
# SU_Q22: Use Internet for telephone/video calls					
Information		[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]		[Valid=17507 / 23273827.376 ] [Invalid=5108 / 4783172.62 ]			
Universe		CU_Q01=1			
Literal question		(During the past 12 months, have you used the Internet:) ... to make telephone or video calls online? For example, Skype, FaceTime.			

# SU\_Q22: Use Internet for telephone/video calls

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	6588	1008897.0	43.3%
2	No	10919	13184930.4	56.7%
6	Valid skip	5005	4652778.8	
7	Don't know	4	6375.3	
8	Refusal	6	4792.8	
9	Not stated	93	119225.7	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# EC\_Q01: Past yr, order goods/services on Internet

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17610 / 23404221.154 ] [Invalid=5005 / 4652778.843 ]
Universe	CU_Q01 = 1
Literal question	During the past 12 months, did you order any goods or services over the Internet?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	9384	13045086.5	55.7%
2	No	8226	10359134.6	44.3%
6	Valid skip	5005	4652778.8	
7	Don't know	0	0.0	
8	Refusal	0	0.0	
9	Not stated	0	0.0	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# EC\_Q02A: Order software on Internet

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=9308 / 12957140.914 ] [Invalid=13307 / 15099859.082 ]
Universe	CU_Q01 = 1 and EC_Q01 = 1
Literal question	During the past 12 months, which of the following types of goods or services did you order? - Software (for example, video games, PC applications)

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	2045	3128531.1	24.1%
2	No	7263	9828609.8	75.9%
6	Valid skip	13165	14928913.0	
7	Don't know	5	4162.2	
8	Refusal	2	589.2	
9	Not stated	135	166194.6	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# EC\_Q02B: Order music on Internet

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=9308 / 12957140.914 ] [Invalid=13307 / 15099859.082 ]
Universe	CU_Q01 = 1 and EC_Q01 = 1
Literal question	During the past 12 months, which of the following types of goods or services did you order? - Music (for example, CDs, MP3)

# EC\_Q02B: Order music on Internet

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	2956	4538376.2	35.0%
2	No	6352	8418764.7	65.0%
6	Valid skip	13165	14928913.0	
7	Don't know	5	4162.2	
8	Refusal	2	589.2	
9	Not stated	135	166194.6	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# EC\_Q02C: Order books, etc. Internet

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=9308 / 12957140.914 ] [Invalid=13307 / 15099859.082 ]
Universe	CU_Q01 = 1 and EC_Q01 = 1
Literal question	During the past 12 months, which of the following types of goods or services did you order? - Books, magazines, online newspapers

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	3849	5405721.7	41.7%
2	No	5459	7551419.2	58.3%
6	Valid skip	13165	14928913.0	
7	Don't know	5	4162.2	
8	Refusal	2	589.2	
9	Not stated	135	166194.6	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# EC\_Q02D: Order videos or DVDs on Internet

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=9308 / 12957140.914 ] [Invalid=13307 / 15099859.082 ]
Universe	CU_Q01 = 1 and EC_Q01 = 1
Literal question	During the past 12 months, which of the following types of goods or services did you order? - Videos or DVDs

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	1813	2804140.9	21.6%
2	No	7495	10153000.0	78.4%
6	Valid skip	13165	14928913.0	
7	Don't know	5	4162.2	
8	Refusal	2	589.2	
9	Not stated	135	166194.6	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# EC\_Q02E: Order memberships on Internet

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=9308 / 12957140.914 ] [Invalid=13307 / 15099859.082 ]
Universe	CU_Q01 = 1 and EC_Q01 = 1
Literal question	During the past 12 months, which of the following types of goods or services did you order? - Memberships or registration fees (for example, health clubs, tuition, online television subscriptions)

# EC\_Q02E: Order memberships on Internet

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	2944	4523656.9	34.9%
2	No	6364	8433484.0	65.1%
6	Valid skip	13165	14928913.0	
7	Don't know	5	4162.2	
8	Refusal	2	589.2	
9	Not stated	135	166194.6	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# EC\_Q02F: Order gift certificates/cards on Internet

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=9308 / 12957140.914 ] [Invalid=13307 / 15099859.082 ]
Universe	CU_Q01 = 1 and EC_Q01 = 1
Literal question	During the past 12 months, which of the following types of goods or services did you order? - Gift certificates or gift cards

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	1469	2260966.7	17.4%
2	No	7839	10696174.2	82.6%
6	Valid skip	13165	14928913.0	
7	Don't know	5	4162.2	
8	Refusal	2	589.2	
9	Not stated	135	166194.6	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# EC\_Q02G: Order ticket for entertainmnt on Internet

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=9308 / 12957140.914 ] [Invalid=13307 / 15099859.082 ]
Universe	CU_Q01 = 1 and EC_Q01 = 1
Literal question	During the past 12 months, which of the following types of goods or services did you order? - Tickets for entertainment events (for example, concerts, movies, sports)

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	4405	6675972.1	51.5%
2	No	4903	6281168.8	48.5%
6	Valid skip	13165	14928913.0	
7	Don't know	5	4162.2	
8	Refusal	2	589.2	
9	Not stated	135	166194.6	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# EC\_Q02H: Order none of the above on Internet

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=9308 / 12957140.914 ] [Invalid=13307 / 15099859.082 ]

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	1893	2337580.7	18.0%
2	No	7415	10619560.3	82.0%
6	Valid skip	13165	14928913.0	



# EC_Q02H: Order none of the above on Internet				
Value	Label	Cases	Weighted	Percentage (Weighted)
7	Don't know	5	4162.2	
8	Refusal	2	589.2	
9	Not stated	135	166194.6	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# EC_Q03: Product order from Internet go to comp				
Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]	[Valid=7401 / 10603882.476 ] [Invalid=15214 / 17453117.521 ]			
Universe	CU_Q01 = 1 and EC_Q01 = 1 and EC_Q02 = (01, 02, 03, 04, 05, 06)			
Literal question	Were any of these products delivered directly to your computer over the Internet rather than physically delivered to your home?			
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	5007	7513350.9	70.9%
2	No	2394	3090531.6	29.1%
6	Valid skip	15058	17266493.7	
7	Don't know	12	11602.9	
8	Refusal	0	0.0	
9	Not stated	144	175020.9	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# EC_Q04A: Past year, order computer hardware				
Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]	[Valid=9297 / 12941822.194 ] [Invalid=13318 / 15115177.803 ]			
Universe	CU_Q01 = 1 and EC_Q01 =1			
Literal question	During the past 12 months, did you order: - ... computer hardware?			
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	1165	1922261.8	14.9%
2	No	8132	11019560.4	85.1%
6	Valid skip	13165	14928913.0	
7	Don't know	9	10447.5	
8	Refusal	4	2015.2	
9	Not stated	140	173802.1	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# EC_Q04B: Past year, order food or beverages				
Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]	[Valid=9297 / 12941822.194 ] [Invalid=13318 / 15115177.803 ]			
Universe	CU_Q01 = 1 and EC_Q01 =1			
Literal question	During the past 12 months, did you order: - ... food or beverages? For example, specialty foods or wine, pizza delivery.			
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	1337	2299678.8	17.8%
2	No	7960	10642143.4	82.2%
6	Valid skip	13165	14928913.0	
7	Don't know	9	10447.5	

# EC_Q04B: Past year, order food or beverages				
Value	Label	Cases	Weighted	Percentage (Weighted)
8	Refusal	4	2015.2	
9	Not stated	140	173802.1	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# EC_Q04C: Past year, order prescription drugs				
Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]	[Valid=9297 / 12941822.194 ] [Invalid=13318 / 15115177.803 ]			
Universe	CU_Q01 = 1 and EC_Q01 =1			
Literal question	During the past 12 months, did you order: - ... prescription drugs or products? For example, glasses.			
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	492	743749.3	5.7%
2	No	8805	12198072.9	94.3%
6	Valid skip	13165	14928913.0	
7	Don't know	9	10447.5	
8	Refusal	4	2015.2	
9	Not stated	140	173802.1	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# EC_Q04D: Past year, order health/beauty products				
Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]	[Valid=9297 / 12941822.194 ] [Invalid=13318 / 15115177.803 ]			
Universe	CU_Q01 = 1 and EC_Q01 =1			
Literal question	During the past 12 months, did you order: - ... other health or beauty products? For example, vitamins, cosmetics.			
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	1341	1924266.3	14.9%
2	No	7956	11017555.9	85.1%
6	Valid skip	13165	14928913.0	
7	Don't know	9	10447.5	
8	Refusal	4	2015.2	
9	Not stated	140	173802.1	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# EC_Q04E: Past year, order clothing/ accessories				
Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]	[Valid=9297 / 12941822.194 ] [Invalid=13318 / 15115177.803 ]			
Universe	CU_Q01 = 1 and EC_Q01 =1			
Literal question	During the past 12 months, did you order: - ... clothing, jewellery or accessories?			
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	3967	5458041.5	42.2%
2	No	5330	7483780.7	57.8%
6	Valid skip	13165	14928913.0	
7	Don't know	9	10447.5	
8	Refusal	4	2015.2	
9	Not stated	140	173802.1	

# EC\_Q04E: Past year, order clothing/ accessories

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# EC\_Q04F: Past year, order house wares

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=9297 / 12941822.194 ] [Invalid=13318 / 15115177.803 ]
Universe	CU_Q01 = 1 and EC_Q01 =1
Literal question	During the past 12 months, did you order: - ... house wares? For example, large appliances, furniture.

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	1157	1605972.7	12.4%
2	No	8140	11335849.4	87.6%
6	Valid skip	13165	14928913.0	
7	Don't know	9	10447.5	
8	Refusal	4	2015.2	
9	Not stated	140	173802.1	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# EC\_Q04G: Past year, order consumer electronics

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=9297 / 12941822.194 ] [Invalid=13318 / 15115177.803 ]
Universe	CU_Q01 = 1 and EC_Q01 =1
Literal question	During the past 12 months, did you order: - ... consumer electronics? For example, cameras, stereos, TVs, DVD players.

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	1721	2791716.4	21.6%
2	No	7576	10150105.8	78.4%
6	Valid skip	13165	14928913.0	
7	Don't know	9	10447.5	
8	Refusal	4	2015.2	
9	Not stated	140	173802.1	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# EC\_Q04H: Past year, order travel arrangements

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=9297 / 12941822.194 ] [Invalid=13318 / 15115177.803 ]
Universe	CU_Q01 = 1 and EC_Q01 =1
Literal question	During the past 12 months, did you order: - ... travel arrangements? For example, hotel reservations, travel tickets, rental cars.

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	5286	7549367.7	58.3%
2	No	4011	5392454.5	41.7%
6	Valid skip	13165	14928913.0	
7	Don't know	9	10447.5	
8	Refusal	4	2015.2	
9	Not stated	140	173802.1	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# EC_Q04I: Past year, order sports equipment				
Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]	[Valid=9297 / 12941822.194 ] [Invalid=13318 / 15115177.803 ]			
Universe	CU_Q01 = 1 and EC_Q01 =1			
Literal question	During the past 12 months, did you order: - ... sports equipment?			
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	1048	1443621.0	11.2%
2	No	8249	11498201.2	88.8%
6	Valid skip	13165	14928913.0	
7	Don't know	9	10447.5	
8	Refusal	4	2015.2	
9	Not stated	140	173802.1	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# EC_Q04J: Past year, order toys and games				
Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]	[Valid=9297 / 12941822.194 ] [Invalid=13318 / 15115177.803 ]			
Universe	CU_Q01 = 1 and EC_Q01 =1			
Literal question	During the past 12 months, did you order: - ... toys and games?			
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	1913	2687228.4	20.8%
2	No	7384	10254593.8	79.2%
6	Valid skip	13165	14928913.0	
7	Don't know	9	10447.5	
8	Refusal	4	2015.2	
9	Not stated	140	173802.1	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# EC_Q04K: Past year, order home/gardening supplies				
Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]	[Valid=9297 / 12941822.194 ] [Invalid=13318 / 15115177.803 ]			
Universe	CU_Q01 = 1 and EC_Q01 =1			
Literal question	During the past 12 months, did you order: - ... home improvement or gardening supplies (including tools)?			
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	758	910894.7	7.0%
2	No	8539	12030927.5	93.0%
6	Valid skip	13165	14928913.0	
7	Don't know	9	10447.5	
8	Refusal	4	2015.2	
9	Not stated	140	173802.1	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# EC_Q04L: Past year, order photographic services				
Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]	[Valid=9297 / 12941822.194 ] [Invalid=13318 / 15115177.803 ]			

# EC_Q04L: Past year, order photographic services				
Universe		CU_Q01 = 1 and EC_Q01 =1		
Literal question		During the past 12 months, did you order: - ... photographic services?		
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	1358	1932651.6	14.9%
2	No	7939	11009170.6	85.1%
6	Valid skip	13165	14928913.0	
7	Don't know	9	10447.5	
8	Refusal	4	2015.2	
9	Not stated	140	173802.1	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# EC_Q04M: Past year, order automotive products				
Information		[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]		
Statistics [NW/ W]		[Valid=9297 / 12941822.194 ] [Invalid=13318 / 15115177.803 ]		
Universe		CU_Q01 = 1 and EC_Q01 =1		
Literal question		During the past 12 months, did you order: - ... automotive products?		
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	989	1294149.9	10.0%
2	No	8308	11647672.3	90.0%
6	Valid skip	13165	14928913.0	
7	Don't know	9	10447.5	
8	Refusal	4	2015.2	
9	Not stated	140	173802.1	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# EC_Q04N: Past year, order flowers				
Information		[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]		
Statistics [NW/ W]		[Valid=9297 / 12941822.194 ] [Invalid=13318 / 15115177.803 ]		
Universe		CU_Q01 = 1 and EC_Q01 =1		
Literal question		During the past 12 months, did you order: - ... flowers?		
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	981	1486364.7	11.5%
2	No	8316	11455457.5	88.5%
6	Valid skip	13165	14928913.0	
7	Don't know	9	10447.5	
8	Refusal	4	2015.2	
9	Not stated	140	173802.1	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# EC_Q04O: Past year, order other goods or services				
Information		[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]		
Statistics [NW/ W]		[Valid=9297 / 12941822.194 ] [Invalid=13318 / 15115177.803 ]		
Universe		CU_Q01 = 1 and EC_Q01 =1		
Literal question		During the past 12 months, did you order: - ... other goods or services? - Specify		

# EC\_Q04O: Past year, order other goods or services

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	450	593229.0	4.6%
2	No	8847	12348593.2	95.4%
6	Valid skip	13165	14928913.0	
7	Don't know	9	10447.5	
8	Refusal	4	2015.2	
9	Not stated	140	173802.1	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# EC\_Q04P: Past yr, order no othr goods or services

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=9297 / 12941822.194 ] [Invalid=13318 / 15115177.803 ]
Universe	CU_Q01 = 1 and EC_Q01 =1
Literal question	During the past 12 months, did you order: - No other goods or services

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	732	955057.6	7.4%
2	No	8565	11986764.6	92.6%
6	Valid skip	13165	14928913.0	
7	Don't know	9	10447.5	
8	Refusal	4	2015.2	
9	Not stated	140	173802.1	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# EC\_Q05A: Order goods/services from Canada

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=9134 / 12707044.485 ] [Invalid=13481 / 15349955.511 ]
Universe	CU_Q01 = 1 and EC_Q01 =1
Literal question	Did you order goods and services from: - ... vendors in Canada?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	7701	10678754.0	84.0%
2	No	1433	2028290.5	16.0%
6	Valid skip	13165	14928913.0	
7	Don't know	164	228088.8	
8	Refusal	9	15874.3	
9	Not stated	143	177079.4	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# EC\_Q05B: Order goods/services from United States

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=9134 / 12707044.485 ] [Invalid=13481 / 15349955.511 ]
Universe	CU_Q01 = 1 and EC_Q01 =1
Literal question	Did you order goods and services from: - ... vendors in the United States?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	5800	8219531.7	64.7%

# EC_Q05B: Order goods/services from United States				
Value	Label	Cases	Weighted	Percentage (Weighted)
2	No	3334	4487512.8	35.3%
6	Valid skip	13165	14928913.0	
7	Don't know	164	228088.8	
8	Refusal	9	15874.3	
9	Not stated	143	177079.4	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# EC_Q05C: Order goods/services from other countries				
Information		[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]		
Statistics [NW/ W]		[Valid=9134 / 12707044.485 ] [Invalid=13481 / 15349955.511 ]		
Universe		CU_Q01 = 1 and EC_Q01 =1		
Literal question		Did you order goods and services from: - ... vendors in other countries?		
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	1744	2708651.2	21.3%
2	No	7390	9998393.3	78.7%
6	Valid skip	13165	14928913.0	
7	Don't know	164	228088.8	
8	Refusal	9	15874.3	
9	Not stated	143	177079.4	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# EC_Q06: How many separate orders did you place over the Internet?				
Information		[Type= continuous] [Format=numeric] [Range= 1-995] [Missing=*]		
Statistics [NW/ W]		[Valid=9384 / 13045086.546 ] [Invalid=13231 / 15011913.45 ] [Mean=12.789 / 12.612 ] [StdDev=28.295 / 23.53 ]		
Universe		CU_Q01 = 1 and EC_Q01 =1		
Literal question		During the past 12 months, how many separate orders did you place over the Internet?		
Value	Label	Cases	Weighted	Percentage (Weighted)
996	Valid skip	13231	15011913.4	
997	Don't know	0	0.0	
998	Refusal	0	0.0	
999	Not stated	0	0.0	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# EC_Q08: Past yr, estimate cost purchased Internet				
Information		[Type= continuous] [Format=numeric] [Range= 0-82000] [Missing=*]		
Statistics [NW/ W]		[Valid=9384 / 13045086.546 ] [Invalid=13231 / 15011913.45 ] [Mean=1410.979 / 1451.496 ] [StdDev=3016.759 / 2957.498 ]		
Universe		CU_Q01 = 1 and EC_Q01 =1		
Pre-question		Past 12 mths esti cost Cdn\$ good/service ordered - Internet?		
Literal question		During the past 12 months, what was the estimated total cost, in Canadian dollars, of the goods and services you ordered over the Internet?		
Value	Label	Cases	Weighted	Percentage (Weighted)
999996	Valid skip	13231	15011913.4	
999997	Don't know	0	0.0	

# EC_Q08: Past yr, estimate cost purchased Internet				
Value	Label	Cases	Weighted	Percentage (Weighted)
999998	Refusal	0	0.0	
999999	Not stated	0	0.0	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# EC_Q10A: Paid with credit card online				
Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]	[Valid=9266 / 12908527.93 ] [Invalid=13349 / 15148472.066 ]			
Universe	CU_Q01 = 1 and EC_Q01 = 1			
Literal question	During the past 12 months, how did you pay for these goods or services ordered over the Internet? - A credit card online			
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	8252	11666677.6	90.4%
2	No	1014	1241850.3	9.6%
6	Valid skip	13165	14928913.0	
7	Don't know	23	25779.8	
8	Refusal	11	8933.8	
9	Not stated	150	184845.4	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# EC_Q10B: Paid with debit card				
Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]	[Valid=9266 / 12908527.93 ] [Invalid=13349 / 15148472.066 ]			
Universe	CU_Q01 = 1 and EC_Q01 = 1			
Literal question	During the past 12 months, how did you pay for these goods or services ordered over the Internet? - Debit card or electronic bank transfer online			
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	844	1226554.8	9.5%
2	No	8422	11681973.2	90.5%
6	Valid skip	13165	14928913.0	
7	Don't know	23	25779.8	
8	Refusal	11	8933.8	
9	Not stated	150	184845.4	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# EC_Q10C: Paid with online payment service				
Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]	[Valid=9266 / 12908527.93 ] [Invalid=13349 / 15148472.066 ]			
Universe	CU_Q01 = 1 and EC_Q01 = 1			
Literal question	During the past 12 months, how did you pay for these goods or services ordered over the Internet? - Online payment service such as Paypal or Google Checkout			
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	3125	4357274.2	33.8%
2	No	6141	8551253.7	66.2%
6	Valid skip	13165	14928913.0	
7	Don't know	23	25779.8	



# EC_Q10C: Paid with online payment service				
Value	Label	Cases	Weighted	Percentage (Weighted)
8	Refusal	11	8933.8	
9	Not stated	150	184845.4	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# EC_Q10D: Paid with prepaid gift card/voucher				
Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]	[Valid=9266 / 12908527.93 ] [Invalid=13349 / 15148472.066 ]			
Universe	CU_Q01 = 1 and EC_Q01 = 1			
Literal question	During the past 12 months, how did you pay for these goods or services ordered over the Internet? - Prepaid gift card or online voucher			
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	765	1183701.1	9.2%
2	No	8501	11724826.8	90.8%
6	Valid skip	13165	14928913.0	
7	Don't know	23	25779.8	
8	Refusal	11	8933.8	
9	Not stated	150	184845.4	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# EC_Q10E: Paid with points from rewards programs				
Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]	[Valid=9266 / 12908527.93 ] [Invalid=13349 / 15148472.066 ]			
Universe	CU_Q01 = 1 and EC_Q01 = 1			
Literal question	During the past 12 months, how did you pay for these goods or services ordered over the Internet? - Points from rewards or redemption programs (for example, Air Miles)			
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	1155	1521094.9	11.8%
2	No	8111	11387433.0	88.2%
6	Valid skip	13165	14928913.0	
7	Don't know	23	25779.8	
8	Refusal	11	8933.8	
9	Not stated	150	184845.4	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# EC_Q10F: Payment not made on the Internet				
Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]	[Valid=9266 / 12908527.93 ] [Invalid=13349 / 15148472.066 ]			
Universe	CU_Q01 = 1 and EC_Q01 = 1			
Literal question	During the past 12 months, how did you pay for these goods or services ordered over the Internet? - Payment not made on the Internet (for example, telephone, mail, COD)			
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	514	663265.5	5.1%
2	No	8752	12245262.5	94.9%
6	Valid skip	13165	14928913.0	
7	Don't know	23	25779.8	

# EC_Q10F: Payment not made on the Internet				
Value	Label	Cases	Weighted	Percentage (Weighted)
8	Refusal	11	8933.8	
9	Not stated	150	184845.4	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# EC_Q11: Past year, main reason not order anything				
Information	[Type= discrete] [Format=numeric] [Range= 1-9] [Missing=*]			
Statistics [NW/ W]	[Valid=8111 / 10222832.807 ] [Invalid=14504 / 17834167.189 ]			
Universe	CU_Q01 = 1 and EC_Q01 = 2			
Literal question	What was the main reason for not ordering any goods or services online during the last 12 months?			
Value	Label	Cases	Weighted	Percentage (Weighted)
1	No interest	2575	3176686.7	31.1%
2	Prefer shop in person	2277	3083546.2	30.2%
3	Security concerns	1458	1718215.1	16.8%
4	Privacy concerns	227	250326.7	2.4%
5	Delivery concerns	47	82717.1	0.8%
6	Availability	16	24856.3	0.2%
7	No credit cards	430	576421.1	5.6%
8	Too slow internet	25	60605.3	0.6%
9	Other	1056	1249458.3	12.2%
96	Valid skip	14322	17617104.8	
97	Don't know	43	42475.2	
98	Refusal	5	10590.6	
99	Not stated	134	163996.6	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# PS_Q01: Concerned banking over the Internet				
Information	[Type= discrete] [Format=numeric] [Range= 1-3] [Missing=*]			
Statistics [NW/ W]	[Valid=17343 / 23042880.666 ] [Invalid=5272 / 5014119.33 ]			
Universe	CU_Q01 = 1			
Literal question	How concerned ^AREYOU01 about conducting banking transactions over the Internet?			
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Not at all concerned	6454	8742282.2	37.9%
2	Concerned	6597	8898430.0	38.6%
3	Very concerned	4292	5402168.5	23.4%
6	Valid skip	5005	4652778.8	
7	Don't know	109	142424.1	
8	Refusal	28	50566.8	
9	Not stated	130	168349.6	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# PS_Q02: Concerned using credit card over Internet				
Information	[Type= discrete] [Format=numeric] [Range= 1-4] [Missing=*]			
Statistics [NW/ W]	[Valid=17372 / 23111089.629 ] [Invalid=5243 / 4945910.367 ]			
Universe	CU_Q01 = 1			

# PS\_Q02: Concerned using credit card over Internet

Literal question		How concerned ^AREYOU02 about using your credit card over the Internet?			
Value	Label	Cases	Weighted	Percentage (Weighted)	
1	Not at all concerned	3731	5236083.6	22.7%	
2	Concerned	7424	9918346.4	42.9%	
3	Very concerned	5462	6838045.4	29.6%	
4	I do not have a credit card	755	1118614.2	4.8%	
6	Valid skip	5005	4652778.8		
7	Don't know	81	96752.1		
8	Refusal	25	25996.1		
9	Not stated	132	170383.3		

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# PS\_Q03: Use security software to protect computer

Information		[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]		[Valid=16939 / 22547131.955 ] [Invalid=5676 / 5509868.042 ]			
Universe		CU_Q01 = 1			
Literal question		Do you currently use any security software to protect your computer or other devices you use to access the Internet?			

Value	Label	Cases	Weighted	Percentage (Weighted)	
1	Yes	13889	18366951.2	81.5%	
2	No	3050	4180180.8	18.5%	
6	Valid skip	5005	4652778.8		
7	Don't know	503	648546.9		
8	Refusal	34	36599.3		
9	Not stated	134	171943.0		

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# PS\_Q04: Use free versions of Internet security

Information		[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]		[Valid=13101 / 17319056.262 ] [Invalid=9514 / 10737943.734 ]			
Universe		CU_Q01 = 1 and PS_Q03 = 1			
Literal question		Do you currently use any free versions of Internet security software?			

Value	Label	Cases	Weighted	Percentage (Weighted)	
1	Yes	6078	8108340.9	46.8%	
2	No	7023	9210715.3	53.2%	
6	Valid skip	8055	8832959.6		
7	Don't know	778	1037131.4		
8	Refusal	9	10407.7		
9	Not stated	672	857445.0		

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# PS\_Q05: Frequency back up files electronically

Information		[Type= discrete] [Format=numeric] [Range= 1-3] [Missing=*]			
Statistics [NW/ W]		[Valid=17183 / 22838802.093 ] [Invalid=5432 / 5218197.903 ]			
Universe		CU_Q01 = 1			
Literal question		How often do you back up files electronically (for example, documents, spreadsheets or pictures)?			

# PS\_Q05: Frequency back up files electronically

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Always/almost always	3861	5390440.0	23.6%
2	Occasionally	6976	10102909.9	44.2%
3	Never	6346	7345452.2	32.2%
6	Valid skip	5005	4652778.8	
7	Don't know	260	361937.5	
8	Refusal	27	27852.3	
9	Not stated	140	175629.3	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# PS_Q06: Frequently delete your browser history					
Information		[Type= discrete] [Format=numeric] [Range= 1-3] [Missing=*]			
Statistics [NW/ W]		[Valid=17170 / 22871778.43 ] [Invalid=5445 / 5185221.566 ]			
Universe		CU_Q01 = 1			
Literal question		How frequently do you delete your browser history?			
Value	Label	Cases	Weighted	Percentage (Weighted)	
1	After each use	2859	3668397.8	16.0%	
2	Occasionally	9323	12744809.6	55.7%	
3	Never	4988	6458571.0	28.2%	
6	Valid skip	5005	4652778.8		
7	Don't know	273	326733.4		
8	Refusal	26	29054.6		
9	Not stated	141	176654.7		
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.					
# PS_Q07: Receive email request personal finances					
Information		[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]		[Valid=17158 / 22795545.237 ] [Invalid=5457 / 5261454.76 ]			
Universe		CU_Q01 = 1			
Literal question		Have you ever: ... received emails requesting personal financial information (such as bank account numbers or passwords) from a fraudulent source?			
Value	Label	Cases	Weighted	Percentage (Weighted)	
1	Yes	7180	10154491.5	44.5%	
2	No	9978	12641053.8	55.5%	
6	Valid skip	5005	4652778.8		
7	Don't know	289	411388.5		
8	Refusal	19	15119.5		
9	Not stated	144	182167.9		
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.					
# PS_Q08: Experience misuse personal info-Internet					
Information		[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]		[Valid=17354 / 23082440.161 ] [Invalid=5261 / 4974559.835 ]			
Universe		CU_Q01 = 1			
Literal question		Have you ever: ... experienced misuse of personal information on the Internet (for example, misuse of pictures, videos or personal data uploaded on public websites)?			
Value	Label	Cases	Weighted	Percentage (Weighted)	
1	Yes	1198	1760312.4	7.6%	
2	No	16156	21322127.7	92.4%	
6	Valid skip	5005	4652778.8		
7	Don't know	92	122094.1		
8	Refusal	18	14833.3		
9	Not stated	146	184853.7		
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.					

# PS_Q09: Had a computer virus					
Information		[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]		[Valid=17192 / 22873451.842 ] [Invalid=5423 / 5183548.154 ]			
Universe		CU_Q01=1			
Literal question		Have you ever: ... had a computer virus?			
Value	Label	Cases	Weighted	Percentage (Weighted)	
1	Yes	10370	14560787.9	63.7%	
2	No	6822	8312664.0	36.3%	
6	Valid skip	5005	4652778.8		
7	Don't know	251	330500.6		
8	Refusal	21	15415.0		
9	Not stated	146	184853.7		
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.					
# PS_Q10: Virus lose information/damage software					
Information		[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]		[Valid=10082 / 14212870.139 ] [Invalid=12533 / 13844129.857 ]			
Universe		CU_Q01 = 1 and PS_Q09 = 1			
Literal question		Did the virus (or viruses) result in the loss of information or damage to software?			
Value	Label	Cases	Weighted	Percentage (Weighted)	
1	Yes	4438	6741058.1	47.4%	
2	No	5644	7471812.1	52.6%	
6	Valid skip	11827	12965442.8		
7	Don't know	285	344611.9		
8	Refusal	2	1685.3		
9	Not stated	419	532389.8		
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.					
# HA_Q01: Household have Internet at home					
Information		[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]		[Valid=22538 / 27908067.908 ] [Invalid=77 / 148932.089 ]			
Universe		All respondents			
Literal question		[Do you/Does your household] have access to the Internet at home?			
Value	Label	Cases	Weighted	Percentage (Weighted)	
1	Yes	18060	24324265.6	87.2%	
2	No	4478	3583802.3	12.8%	
6	Valid skip	0	0.0		
7	Don't know	1	1448.9		
8	Refusal	3	2016.6		
9	Not stated	73	145466.6		
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.					
# HA_Q02A: No internet: No need/interest					
Information		[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]			
Statistics [NW/ W]		[Valid=4468 / 3573635.936 ] [Invalid=18147 / 24483364.06 ]			

# HA_Q02A: No internet: No need/interest				
Universe		HA_Q01 = 2		
Literal question		What are the reasons [you do not/your household does not] have access to the Internet at home? - No need or no interest		
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	2808	2260220.8	63.2%
2	No	1660	1313415.1	36.8%
6	Valid skip	18060	24324265.6	
7	Don't know	6	6679.7	
8	Refusal	2	494.2	
9	Not stated	79	151924.6	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# HA_Q02B: No internet: Cost				
Information		[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]		
Statistics [NW/ W]		[Valid=4468 / 3573635.936 ] [Invalid=18147 / 24483364.06 ]		
Universe		HA_Q01 = 2		
Literal question		What are the reasons [you do not/your household does not] have access to the Internet at home? - Cost (service or equipment)		
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	838	686609.2	19.2%
2	No	3630	2887026.7	80.8%
6	Valid skip	18060	24324265.6	
7	Don't know	6	6679.7	
8	Refusal	2	494.2	
9	Not stated	79	151924.6	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# HA_Q02C: No internet: Access elsewhere				
Information		[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]		
Statistics [NW/ W]		[Valid=4468 / 3573635.936 ] [Invalid=18147 / 24483364.06 ]		
Universe		HA_Q01 = 2		
Literal question		What are the reasons [you do not/your household does not] have access to the Internet at home? - Have access to the Internet elsewhere (for example, at work, school)		
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	117	113693.4	3.2%
2	No	4351	3459942.5	96.8%
6	Valid skip	18060	24324265.6	
7	Don't know	6	6679.7	
8	Refusal	2	494.2	
9	Not stated	79	151924.6	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# HA_Q02D: No internet: Service not meet need				
Information		[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]		
Statistics [NW/ W]		[Valid=4468 / 3573635.936 ] [Invalid=18147 / 24483364.06 ]		
Universe		HA_Q01 = 2		

# HA_Q02D: No internet: Service not meet need				
Literal question		What are the reasons [you do not/your household does not] have access to the Internet at home? - The available service does not meet our needs		
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	121	111146.7	3.1%
2	No	4347	3462489.3	96.9%
6	Valid skip	18060	24324265.6	
7	Don't know	6	6679.7	
8	Refusal	2	494.2	
9	Not stated	79	151924.6	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# HA_Q02G: No internet: Lack confidence/skill				
Information		[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]		
Statistics [NW/ W]		[Valid=4468 / 3573635.936 ] [Invalid=18147 / 24483364.06 ]		
Universe		HA_Q01 = 2		
Literal question		What are the reasons [you do not/your household does not] have access to the Internet at home? - Lack of confidence, knowledge, or skills		
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	518	362716.2	10.1%
2	No	3950	3210919.8	89.9%
6	Valid skip	18060	24324265.6	
7	Don't know	6	6679.7	
8	Refusal	2	494.2	
9	Not stated	79	151924.6	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# HA_Q02H: No internet: No Internet-ready device				
Information		[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]		
Statistics [NW/ W]		[Valid=4468 / 3573635.936 ] [Invalid=18147 / 24483364.06 ]		
Universe		HA_Q01 = 2		
Literal question		What are the reasons [you do not/your household does not] have access to the Internet at home? - No Internet-ready device (for example, desktop computer) available in dwelling		
Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	597	371296.5	10.4%
2	No	3871	3202339.5	89.6%
6	Valid skip	18060	24324265.6	
7	Don't know	6	6679.7	
8	Refusal	2	494.2	
9	Not stated	79	151924.6	
Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.				
# HA_02G: No internet: Other				
Information		[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]		
Statistics [NW/ W]		[Valid=4468 / 3573635.936 ] [Invalid=18147 / 24483364.06 ]		
Literal question		Reason hhld no access to Internet-home?...Other		



# HA\_Q2G: No internet: Other

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	290	265174.5	7.4%
2	No	4178	3308461.4	92.6%
6	Valid skip	18060	24324265.6	
7	Don't know	0	0.0	
8	Refusal	0	0.0	
9	Not stated	87	159098.5	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# HA\_Q03A: Access Internet at home: Desktop computer

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=18041 / 24279007.139 ] [Invalid=4574 / 3777992.857 ]
Universe	HA_Q01 = 1
Literal question	Do [you/members of your household] access the Internet at home using : - ... a desktop computer?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	11204	15847363.8	65.3%
2	No	6837	8431643.3	34.7%
6	Valid skip	4478	3583802.3	
7	Don't know	13	30314.4	
8	Refusal	2	922.4	
9	Not stated	81	162953.7	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# HA\_Q03B: Access Internet at home: Laptop computer

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=18041 / 24279007.139 ] [Invalid=4574 / 3777992.857 ]
Universe	HA_Q01 = 1
Literal question	Do [you/members of your household] access the Internet at home using : - ... a laptop computer, including Netbooks?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	12881	18727144.1	77.1%
2	No	5160	5551863.0	22.9%
6	Valid skip	4478	3583802.3	
7	Don't know	13	30314.4	
8	Refusal	2	922.4	
9	Not stated	81	162953.7	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# HA\_Q03C: Access Internet home: Video games console

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=18041 / 24279007.139 ] [Invalid=4574 / 3777992.857 ]
Universe	HA_Q01 = 1
Literal question	Do [you/members of your household] access the Internet at home using : - ... a video game console? For example, Xbox Live or PlayStation 3.

Value	Label	Cases	Weighted	Percentage (Weighted)
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# HA\_Q03C: Access Internet home: Video games console

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	4565	7597683.2	31.3%
2	No	13476	16681323.9	68.7%
6	Valid skip	4478	3583802.3	
7	Don't know	13	30314.4	
8	Refusal	2	922.4	
9	Not stated	81	162953.7	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# HA\_Q03D: Access Internet at home:Blackberry/iPhone

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*
Statistics [NW/ W]	[Valid=18041 / 24279007.139 ] [Invalid=4574 / 3777992.857 ]
Universe	HA_Q01 = 1
Literal question	Do [you/members of your household] access the Internet at home using : - ... a smart phone, tablet or other wireless handheld device? For example, a Blackberry or iPhone.

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	9972	15400061.1	63.4%
2	No	8069	8878946.0	36.6%
6	Valid skip	4478	3583802.3	
7	Don't know	13	30314.4	
8	Refusal	2	922.4	
9	Not stated	81	162953.7	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# HA\_Q03E: Access Internet at home: Other device

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*
Statistics [NW/ W]	[Valid=18041 / 24279007.139 ] [Invalid=4574 / 3777992.857 ]
Universe	HA_Q01 = 1
Literal question	Do [you/members of your household] access the Internet at home using : - ... any other device - specify

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	203	308225.2	1.3%
2	No	17838	23970782.0	98.7%
6	Valid skip	4478	3583802.3	
7	Don't know	13	30314.4	
8	Refusal	2	922.4	
9	Not stated	81	162953.7	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# HA\_Q04A: Connected to Internet: Telephone line

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*
Statistics [NW/ W]	[Valid=17698 / 23872101.463 ] [Invalid=4917 / 4184898.533 ]
Universe	HA_Q01 = 1
Literal question	Is your household currently connected to the Internet at home by: - ... telephone line?

Value	Label	Cases	Weighted	Percentage (Weighted)
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# HA\_Q04A: Connected to Internet: Telephone line

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	6187	7562923.4	31.7%
2	No	11511	16309178.0	68.3%
6	Valid skip	4478	3583802.3	
7	Don't know	352	431266.3	
8	Refusal	3	3141.4	
9	Not stated	84	166688.6	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# HA\_Q04B: Connected to Internet: Cable line

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17698 / 23872101.463 ] [Invalid=4917 / 4184898.533 ]
Universe	HA_Q01 = 1
Literal question	Is your household currently connected to the Internet at home by: - ... cable line?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	8947	13297140.4	55.7%
2	No	8751	10574961.1	44.3%
6	Valid skip	4478	3583802.3	
7	Don't know	352	431266.3	
8	Refusal	3	3141.4	
9	Not stated	84	166688.6	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# HA\_Q04C: Connected to Internet: Satellite dish

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17698 / 23872101.463 ] [Invalid=4917 / 4184898.533 ]
Universe	HA_Q01 = 1
Literal question	Is your household currently connected to the Internet at home by: - ... satellite dish?

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	839	997914.9	4.2%
2	No	16859	22874186.6	95.8%
6	Valid skip	4478	3583802.3	
7	Don't know	352	431266.3	
8	Refusal	3	3141.4	
9	Not stated	84	166688.6	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# HA\_Q04D: Connected to Internet: Wireless device

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=17698 / 23872101.463 ] [Invalid=4917 / 4184898.533 ]
Universe	HA_Q01 = 1
Literal question	Is your household currently connected to the Internet at home by: - ... a wireless device including handheld devices, sticks or fixed wireless?

Value	Label	Cases	Weighted	Percentage (Weighted)
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# HA\_Q04D: Connected to Internet: Wireless device

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	3878	5091266.9	21.3%
2	No	13820	18780834.6	78.7%
6	Valid skip	4478	3583802.3	
7	Don't know	352	431266.3	
8	Refusal	3	3141.4	
9	Not stated	84	166688.6	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# HA\_Q04E: Connected to Internet: Other connection

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*
Statistics [NW/ W]	[Valid=17698 / 23872101.463 ] [Invalid=4917 / 4184898.533 ]
Universe	HA_Q01 = 1
Literal question	Is your household currently connected to the Internet at home by: - ... any other connection - specify

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	106	115279.2	0.5%
2	No	17592	23756822.2	99.5%
6	Valid skip	4478	3583802.3	
7	Don't know	352	431266.3	
8	Refusal	3	3141.4	
9	Not stated	84	166688.6	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# HA\_Q05A: Wireless connection: Blackberry/iPhone

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*
Statistics [NW/ W]	[Valid=3491 / 4630434.725 ] [Invalid=19124 / 23426565.271 ]
Universe	HA_Q01 = 1 and HA_Q04 = 4
Literal question	You mentioned a wireless connection. Excluding wireless routers, is your household currently connected to the Internet at home by: - ... mobile Internet service for a smart phone, tablet or other wireless handheld device? For example, a Blackberry or iPhone.

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	2475	3296553.7	71.2%
2	No	1016	1333881.1	28.8%
6	Valid skip	18298	22364637.0	
7	Don't know	340	417230.6	
8	Refusal	4	4204.5	
9	Not stated	482	640493.1	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# HA\_Q05B: Wireless connection: Wireless stick/card

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*
Statistics [NW/ W]	[Valid=3491 / 4630434.725 ] [Invalid=19124 / 23426565.271 ]
Universe	HA_Q01 = 1 and HA_Q04 = 4
Literal question	You mentioned a wireless connection. Excluding wireless routers, is your household currently connected to the Internet at home by: - ... wireless stick or card? For example, data or mobile access stick connected to a laptop USB port.

# HA\_Q05B: Wireless connection: Wireless stick/card

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	520	673101.2	14.5%
2	No	2971	3957333.5	85.5%
6	Valid skip	18298	22364637.0	
7	Don't know	340	417230.6	
8	Refusal	4	4204.5	
9	Not stated	482	640493.1	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# HA\_Q05C: Wireless connectn:Wireless/Point-to-Point

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=3491 / 4630434.725 ] [Invalid=19124 / 23426565.271 ]
Universe	HA_Q01 = 1 and HA_Q04 = 4
Literal question	You mentioned a wireless connection. Excluding wireless routers, is your household currently connected to the Internet at home by: - ... fixed wireless or Point-to-Point? For example, requiring line of sight reception.

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	751	1027757.4	22.2%
2	No	2740	3602677.4	77.8%
6	Valid skip	18298	22364637.0	
7	Don't know	340	417230.6	
8	Refusal	4	4204.5	
9	Not stated	482	640493.1	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.

# HA\_Q05D: Wireless connection: Other

Information	[Type= discrete] [Format=numeric] [Range= 1-2] [Missing=*]
Statistics [NW/ W]	[Valid=3491 / 4630434.725 ] [Invalid=19124 / 23426565.271 ]
Universe	HA_Q01 = 1 and HA_Q04 = 4
Literal question	You mentioned a wireless connection. Excluding wireless routers, is your household currently connected to the Internet at home by: - ... any other wireless connection? - specify

Value	Label	Cases	Weighted	Percentage (Weighted)
1	Yes	173	220600.4	4.8%
2	No	3318	4409834.4	95.2%
6	Valid skip	18298	22364637.0	
7	Don't know	340	417230.6	
8	Refusal	4	4204.5	
9	Not stated	482	640493.1	

Warning: these figures indicate the number of cases found in the data file. They cannot be interpreted as summary statistics of the population of interest.


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