# THE EFFECTS OF GENDER ON INTERNET USE 

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## Introduction

From the beginning of the appearance of the Internet, it is known that women used it less than men - the term usually did not appear in the early years - either because they were at home doing coursework or not working. In the late 2000s, where the internet evolved, firms started implementing computers and therefore providing services via internet to their clients. The employers were mainly men, due to their educational characteristics and that is why women maintained the low percentage of internet use.

Nowadays, women's' internet use is still not equal to that of men, because of the abilities of them, according to Ono and Zavodny (2003), their personal characteristics specifically. These might be how quickly their adaptation is in new technology, how keen they are in working online (hybrid), and their capability of learning correctly the software an organization is working with.

The general outcome is that there is a remaining gender gap and its factors affecting the internet use, with a greater weight towards women, slightly changing, but still, a huge gender gap. Some key factors assisting this point are, according to Garín-Muñoza, Pérez-Amaral and Valarezo (2022), that women do not use the internet usually as men, and indeed women use less services either online (Web Foundation, 2020) or at work within the internet rather than men.

In this study, we will examine the gender effects on internet use, while dealing with different categories of the variables used. Starting with the description of the variables, following with some expected results driven from the graphs, to finally derive the results and conclusion remarks.

## Data Description

In the probit models displayed further in the study, we will examine the effects of gender on internet use. The probit models which were created are using as reference group the Occasional_Use and Usual_Use of internet respectively, whilst also including the variables affecting them. These would be gender, education, household income, age, countries, and years. The models are as follow:

Usual_Use $i_{t}=\mathrm{f}\left(\right.$ Gender $_{t}{ }_{t}$, Education $i_{t}$, Income $i_{t}$, Age $i_{t}$, Countries $i_{t}$, Years $t$
Where subscript i represents the individual and subscript $t$ refers to the year.
The dependent variable is a binary variable taking the value 1 if the individual has used the internet occasionally; 0 otherwise (usually).

The explanatory variables are the following categorical variables:
Gender: 1 if male; 0 if female.
Education: Three education groups: Low_educ; Medium_educ; High_educ.
Income: Four income groups: Low_Inc; Medium_Inc; Average_Inc; High_Inc.
Age: Five age groups: Age_0_24; Age_25_36; Age_37_50; Age_51_65; Age_66_AO.
Countries: Twenty-nine countries: AT, BE, BG, CY, CZ, DE, DK, EE, FI, FR, HR, HU, IE, IS, IT, LT, LU, LV, ME, MK, NL, NO, PL, PT, RO, RS, SE, SI, SK.

Years: 8 years of ESS Rounds: Year_2002, Year_2004, Year_2006, Year_2008, Year_2010, Year_2016, Year_2018, Year_2020

However, for our models, we excluded the years 2012 and 2014 due to collinearities. As a result, we ended up with a total of 178128 observations. But before that, let us move on to the descriptive statistics.

## Descriptive Statistics

In this section, each variable used in running the probit model with its categories, will be presented using graphs, for us to assume what are the expected results. The graphs were created based on the gender effects on internet use. The categories that are going to be examined are education, income, age, countries, and years of ESS rounds. Starting with the education levels, one can observe from the graphs below, that is expected for all the levels of education and being a male, the internet use to be usual, and therefore, it is expected for all the levels of education and being a female, the internet use to be occasional.


This outcome could be due to gender differences among the countries and the age groups, since one "owning" all levels of education, has the privilege of usually using the internet. This assumption
concludes that for someone to use the internet on a usual basis, it is expected to have higher education, and therefore higher income to enjoy the internet services - and most likely be a male.

Adding to the previous, from the graphs below, it is expected for all the levels of income, and being a male, the internet use to be usual, and therefore, it is expected for all the levels of income and being a female, the internet use to be occasional. This outcome answers - part of it - our preceding assumption, that being a male and having higher education, can lead to higher income.


Having said that, the next graphs are related to the age groups. Will this assumption be true in combination with the age of the sexes?

One thing someone can inspect looking at the coming graphs, is the U-shape that stands out in both. Again, there are similarities between the two types of the internet use, with men usually using the internet and women occasionally using the internet. The answer to the assumption is nearly answered, with the part of countries coming up to have the final data picture.


Also, an interesting point from the first graph is that women between the ages 51 to 65 are more likely to occasionally use the internet, more than any other age category. One might say that this fact is expected, because as people grow older, they tend to turn to less harmful pursuits in their spare time, maybe forget how to use it, or simply when a person is elderly, they do not know how to use it.

Lastly, below are the graphs of the categories of countries for occasional and usual internet use accordingly.



To decide if the assumption finally works, the higher education must align with the higher income and age group, in a country with high living standard - based on the male sex. Having said that,
males in high living standard countries are more likely to use the internet usually rather than females in high living standard countries, except IE, where female are usually using the internet. Few
exceptions are stated in the first graph too, where women in low living standard countries like Hungary, Latvia, and Montenegro, are less likely to occasionally use the internet.

Finally, the following graphs show the frequency of years of the ESS rounds as to the type of internet use, based by gender.



As expected, as we reach year 2020, males are more likely to usually use the internet, rather than females, which use it occasionally. And it is clear from the first graph, that after year 2010, the wide spread of technology and therefore the use of internet is mostly usually used by both sexes.

Overall, our assumption is correct and aligns perfectly with the type of sex and its effects on the internet use, a point which will be tested with probit models right below.

## Data and Methodology

## Probit Model (Occasional_Use)

For the specific study, the data are collected from the European Social Survey(ESS) official website. The model that is being used is the probit one via Stata 17 , to calculate the probability for both genders to either use the internet occasionally or usually, combining different factors which may contribute to shaping the various results. From the model, Year_2012 and Year_2014 are excluded which corresponds to ESS six and seven rounds, as well as some of the countries including Greece and Israel, due to collinearities.

To start with, this probit model uses the variable Occasional_Use as the reference group and in the results below which are placed in a table, one can observe the different outcomes for both sexes:

|  | Variables | Coefficients | $\mathrm{P}>\|\mathrm{z}\|$ | Male | $P>\|z\|$ | Female | $\mathrm{P}>\|\mathrm{z}\|$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Occasional_Use |  |  |  | Coefficients |  |  |  |
|  | Male | -0.071 | 0.000 |  |  |  |  |
|  | Medium_educ | -0.062 | 0.000 | -0.080 | 0.000 | -0.047 | 0.000 |
|  | High_educ | -0.439 | 0.000 | -0.500 | 0.000 | -0.394 | 0.000 |
|  | Medium_inc | 0.067 | 0.000 | 0.044 | 0.011 | 0.069 | 0.000 |
|  | Average_inc | 0.009 | 0.474 | -0.034 | 0.067 | 0.033 | 0.047 |
|  | High_inc | -0.165 | 0.000 | -0.215 | 0.000 | -0.130 | 0.000 |
|  | Age_25_36 | 0.201 | 0.000 | 0.162 | 0.000 | 0.238 | 0.000 |
|  | Age_37_50 | 0.529 | 0.000 | 0.472 | 0.000 | 0.582 | 0.000 |
|  | Age_51_65 | 0.731 | 0.000 | 0.705 | 0.000 | 0.764 | 0.000 |
|  | Age_66_AO | 0.694 | 0.000 | 0.687 | 0.000 | 0.719 | 0.000 |
|  | BE | 0.024 | 0.549 | -0.056 | 0.349 | 0.094 | 0.088 |
|  | BG | 0.160 | 0.000 | 0.152 | 0.018 | 0.163 | 0.005 |
|  | CY | 0.356 | 0.000 | 0.341 | 0.000 | 0.371 | 0.000 |
|  | CZ | 0.083 | 0.039 | 0.094 | 0.111 | 0.072 | 0.186 |
|  | DE | -0.006 | 0.879 | -0.062 | 0.294 | 0.046 | 0.398 |
|  | DK | -0.195 | 0.000 | -0.209 | 0.001 | -0.184 | 0.001 |
|  | EE | 0.227 | 0.000 | 0.206 | 0.001 | 0.246 | 0.000 |
|  | FI | -0.047 | 0.298 | -0.106 | 0.107 | 0.003 | 0.963 |
|  | FR | -0.086 | 0.037 | -0.086 | 0.155 | -0.084 | 0.131 |
|  | HR | 0.358 | 0.000 | 0.380 | 0.000 | 0.343 | 0.000 |
|  | HU | -0.063 | 0.139 | -0.030 | 0.634 | -0.085 | 0.140 |
|  | IE | 0.127 | 0.004 | 0.107 | 0.100 | 0.133 | 0.028 |
|  | IS | -0.178 | 0.002 | -0.206 | 0.014 | -0.162 | 0.041 |
|  | IT | 0.216 | 0.000 | 0.166 | 0.015 | 0.257 | 0.000 |
|  | LT | 0.266 | 0.000 | 0.299 | 0.000 | 0.261 | 0.000 |
|  | LU | -0.078 | 0.123 | -0.101 | 0.166 | -0.050 | 0.478 |


|  | LV | 0.254 | 0.000 | 0.327 | 0.000 | 0.222 | 0.001 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ME | 0.445 | 0.000 | 0.453 | 0.000 | 0.418 | 0.000 |
|  | MK | 0.415 | 0.000 | 0.455 | 0.000 | 0.370 | 0.000 |
|  | NL | -0.170 | 0.000 | -0.185 | 0.002 | -0.161 | 0.003 |
|  | NO | -0.174 | 0.000 | -0.268 | 0.000 | -0.087 | 0.121 |
|  | PL | 0.097 | 0.017 | 0.103 | 0.084 | 0.084 | 0.126 |
|  | PT | 0.221 | 0.000 | 0.142 | 0.043 | 0.281 | 0.000 |
|  | RO | 0.465 | 0.000 | 0.447 | 0.000 | 0.476 | 0.000 |
|  | RS | 0.424 | 0.000 | 0.447 | 0.000 | 0.400 | 0.000 |
|  | SE | -0.273 | 0.000 | -0.239 | 0.001 | -0.323 | 0.000 |
|  | SI | 0.466 | 0.000 | 0.460 | 0.000 | 0.471 | 0.000 |
|  | SK | 0.386 | 0.000 | 0.419 | 0.000 | 0.361 | 0.000 |
|  | Year_2004 | -0.125 | 0.000 | -0.096 | 0.000 | -0.155 | 0.000 |
|  | Year_2006 | -0.303 | 0.000 | -0.259 | 0.000 | -0.346 | 0.000 |
|  | Year_2008 | -0.383 | 0.000 | -0.314 | 0.000 | -0.449 | 0.000 |
|  | Year_2010 | -0.522 | 0.000 | -0.452 | 0.000 | -0.589 | 0.000 |
|  | Year_2016 | -1.164 | 0.000 | -1.081 | 0.000 | -1.244 | 0.000 |
|  | Year_2018 | -1.222 | 0.000 | -1.125 | 0.000 | -1.312 | 0.000 |
|  | Year_2020 | -1.243 | 0.000 | -1.134 | 0.000 | -1.343 | 0.000 |
|  |  |  |  |  |  |  |  |
| Num of Obvs | 178128 |  |  | 84028 |  | 94100 |  |
| R^2 | 0.1362 |  |  | 0.1332 |  | 0.1404 |  |

For the variables, starting with the Occasional_Use, the predicted probability of using the internet occasionally while maintaining a high income in the household, is 0.215 lower for male and 0.130 lower for female, a difference up to 0.085 . The same goes for the level of education, as for male the predicted probabilities of having secondary and tertiary education while using occasionally the internet, are both lower than that of female ( -0.080 and $-0.500,-0.047$ and -0.394 , accordingly). Note that the variables Medium_educ and High_educ are statistically significant, with p-values being equal to zero. Moving on to the age categories, it is observed that the peak of the higher probabilities of occasional internet use for both men and women are between the ages 51-65, with 0.705 and 0.764 respectively.

Now for the countries, it is noticed that the ones with a high living standard like DK and NL, have lower predicted probabilities for men and women living there and using the internet occasionally ( -0.209 and $-0.184,-0.185$ and -0.161 , accordingly), than the countries with a medium living standard such as RO and SK, which have positive predicted probabilities of 0.447 for male and 0.476 for female, as well as 0.419 for male and 0.361 for female, respectively. Our analysis concludes with the countries with a low living standard, like Czechia, which has the lowest positive predicted probability for both male and female, with the numbers reaching to 0.094 and 0.072 , while maintaining 0.111 and 0.186 p-values, accordingly. Finally, for the years of ESS rounds, besides the variables Year_2004 and Year_2006 which have the lowest negative predicted probabilities, for all the other years the predicted probabilities are from 0.5 and higher, for both sexes.

## Probit Model (Usual_Use)

Moving on to the next probit model, using the same independent variables as before but with the change of the reference group which is now the Usual_Use, the results were the following:

|  | Variables | Coefficients | $\mathrm{P}>\|\mathrm{z}\|$ | Male | $\mathrm{P}>\|\mathrm{z}\|$ | Female | $\mathrm{P}>\|\mathrm{z}\|$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Usual_Use |  |  |  | Coefficients |  |  |  |
|  | Male | 0.080 | 0.000 |  |  |  |  |
|  | Medium_educ | 0.551 | 0.000 | 0.507 | 0.000 | 0.586 | 0.000 |
|  | High_educ | 1.274 | 0.000 | 1.306 | 0.000 | 1.241 | 0.000 |
|  | Medium_inc | 0.368 | 0.000 | 0.418 | 0.000 | 0.341 | 0.000 |
|  | Average_inc | 0.663 | 0.000 | 0.762 | 0.000 | 0.583 | 0.000 |
|  | High_inc | 0.913 | 0.000 | 1.034 | 0.000 | 0.807 | 0.000 |
|  | Age_25_36 | -0.606 | 0.000 | -0.536 | 0.000 | -0.665 | 0.000 |
|  | Age_37_50 | -0.977 | 0.000 | -0.947 | 0.000 | -1.006 | 0.000 |
|  | Age_51_65 | -1.562 | 0.000 | -1.533 | 0.000 | -1.608 | 0.000 |
|  | Age_66_AO | -2.404 | 0.000 | -2.276 | 0.000 | -2.559 | 0.000 |
|  | BE | 0.097 | 0.003 | 0.152 | 0.001 | 0.038 | 0.396 |
|  | BG | -0.738 | 0.000 | -0.783 | 0.000 | -0.697 | 0.000 |
|  | CY | -0.652 | 0.000 | -0.623 | 0.000 | -0.692 | 0.000 |
|  | CZ | -0.090 | 0.005 | -0.118 | 0.012 | -0.068 | 0.121 |
|  | DE | 0.034 | 0.281 | 0.082 | 0.072 | -0.025 | 0.558 |
|  | DK | 0.754 | 0.000 | 0.715 | 0.000 | 0.798 | 0.000 |
|  | EE | -0.049 | 0.147 | -0.111 | 0.025 | 0.006 | 0.887 |
|  | FI | 0.486 | 0.000 | 0.470 | 0.000 | 0.513 | 0.000 |
|  | FR | 0.144 | 0.000 | 0.107 | 0.023 | 0.178 | 0.000 |
|  | HR | -0.472 | 0.000 | -0.515 | 0.000 | -0.439 | 0.000 |
|  | HU | -0.448 | 0.000 | -0.514 | 0.000 | -0.397 | 0.000 |
|  | IE | 0.290 | 0.000 | 0.230 | 0.000 | 0.346 | 0.000 |
|  | IS | 0.964 | 0.000 | 0.848 | 0.000 | 1.117 | 0.000 |
|  | IT | -0.105 | 0.004 | -0.016 | 0.768 | -0.188 | 0.000 |
|  | LT | -0.460 | 0.000 | -0.536 | 0.000 | -0.429 | 0.000 |
|  | LU | 0.222 | 0.000 | 0.208 | 0.001 | 0.216 | 0.001 |
|  | LV | -0.199 | 0.000 | -0.270 | 0.000 | -0.160 | 0.004 |
|  | ME | -0.398 | 0.000 | -0.414 | 0.000 | -0.347 | 0.000 |
|  | MK | -0.611 | 0.000 | -0.736 | 0.000 | -0.489 | 0.000 |
|  | NL | 0.850 | 0.000 | 0.812 | 0.000 | 0.892 | 0.000 |
|  | NO | 0.643 | 0.000 | 0.699 | 0.000 | 0.585 | 0.000 |
|  | PL | -0.365 | 0.000 | -0.370 | 0.000 | -0.361 | 0.000 |
|  | PT | -0.186 | 0.000 | -0.122 | 0.033 | -0.241 | 0.000 |
|  | RO | -0.965 | 0.000 | -0.996 | 0.000 | -0.938 | 0.000 |
|  | RS | -0.740 | 0.000 | -0.781 | 0.000 | -0.699 | 0.000 |
|  | SE | 0.860 | 0.000 | 0.757 | 0.000 | 0.973 | 0.000 |
|  | SI | -0.110 | 0.001 | -0.108 | 0.025 | -0.109 | 0.016 |
|  | SK | -0.580 | 0.000 | -0.580 | 0.000 | -0.582 | 0.000 |
|  | Year_2004 | 0.309 | 0.000 | 0.260 | 0.000 | 0.373 | 0.000 |
|  | Year_2006 | 0.666 | 0.000 | 0.588 | 0.000 | 0.763 | 0.000 |
|  | Year_2008 | 1.009 | 0.000 | 0.905 | 0.000 | 1.133 | 0.000 |
|  | Year_2010 | 1.299 | 0.000 | 1.170 | 0.000 | 1.450 | 0.000 |
|  | Year_2016 | 1.930 | 0.000 | 1.785 | 0.000 | 2.103 | 0.000 |
|  | Year_2018 | 2.126 | 0.000 | 1.957 | 0.000 | 2.317 | 0.000 |


|  | Year_2020 | 2.327 | 0.000 | 2.114 | 0.000 | 2.558 | 0.000 |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Num of <br> Obvs |  |  |  |  |  |  |  |  | 178128 |  | 84028 |  | 94100 |  |
| R^2 | 0.4157 |  |  | 0.3937 |  | 0.4377 |  |  |  |  |  |  |  |  |

For the variables, starting with the Usual_Use, the predicted probability of using the internet usually while maintaining a high income in the household, is 1.034 higher for male and 0.807 higher for female, a difference up to 0.227 . The same goes for the level of education, as for male the predicted probability of having secondary education while using occasionally the internet, is lower than that of female ( 0.507 and 0.586 , accordingly). On the other hand, the predicted probability of female having tertiary education while usually using the internet, is lower than that of male (1.241 and 1.306, respectively). Note that for both variables Medium_educ and High_educ, the p-values are equal to zero and therefore, there is statistical significancy. Moving on to the age categories, it is observed that the peak of the higher negative probabilities of usual internet use, for both men and women, are from the age 61 and over, with 2.276 and 2.559 , respectively.

Now for the countries, it is noticed that the ones with a high living standard like DK and NL, have positive predicted probabilities for men and women living there and using the internet usually ( 0.715 and $0.798,0.812$ and 0.892 , accordingly), than the countries with a medium living standard such as RO and SK, which have negative predicted probabilities of 0.996 for male and 0.938 for female, as well as 0.580 for male and 0.582 for female, respectively. Our analysis concludes with the countries with a low living standard, like Slovenia, which has the lowest negative predicted probability for both male and female, with the numbers reaching to 0.108 and 0.109 , while maintaining 0.025 and 0.016 p-values, accordingly. Finally, for the years of ESS rounds, besides the variables Year_2004 and Year_2006 which have the lowest positive predicted probabilities, for all the other years the predicted probabilities are from 1 and higher, for both sexes.

## Results and Conclusion

Both probit models can be noticed with some similarities and differences. The results were the opposite, for both sexes, for the different factors affecting the two types of internet use, as expected.

Starting from the last variable category, the years of ESS rounds, as the years go by, it is more likely people to usually use the internet and not occasionally. For example, there is a big difference between the variable Year_2020 for occasional internet use and the variable Year_2020 for usual internet use. This can be shown from the numbers, since the predicted probabilities of using occasionally the internet are less likely for both male and female, up to 1.134 and 1.343 respectively, and the predicted probabilities of using usually the internet are more likely, up to 2.114 and 2.558 accordingly.

Moving up to the countries, depending on the category of living standard they are, the probabilities are different. For example, countries with low living standard, like Bulgaria, its predicted probabilities of a male or female living in this country and using the internet occasionally, are higher than the predicted probabilities of using the internet usually, with probabilities 0.152 and 0.163 and probabilities -0.783 and -0.697 , accordingly. Note that the variable BG is statistically significant only for the usual internet use, in addition with the p-values for both sexes for the occasional internet use ( 0.018 for male and 0.005 for female).

Countries with medium living standard, like Estonia, have higher predicted probabilities for both sexes in using occasionally the internet rather than usually using the internet, with probabilities of 0.206 and 0.246 , and probabilities of -0.111 and 0.006 , respectively. Note that statistically significant is only the female living in Estonia for occasional internet use. Finally, countries with high living standard, like Iceland, its predicted probabilities of a male or female living in this country and using the internet occasionally, are lower than the predicted probabilities of using the internet usually, with probabilities -0.206 and -0.162 , and probabilities 0.848 and 1.117 , respectively.

The last categories from the results are the age groups, income, and education. For the age groups, as a person grows older, the use of the internet is less, and it can be shown from the higher predicted probabilities in all the age groups for occasional internet use. Coming to the income part, it is observed something strange. The average income is statistically insignificant for the occasional internet use, rather than the average income for the usual internet use. Adding to that, the predicted probabilities of the average income in the usual internet use are higher than those of the predicted probabilities of the average income in the occasional internet use for, male and female, with probabilities 0.762 and 0.583 , and probabilities of -0.034 and 0.033 , respectively. Finishing with the education variables, all the predicted probabilities for both sexes of the usual internet use, are higher - and positive - of the predicted probabilities of the occasional internet use. From the last part, it can be definite that, the higher the level of education for a person, the more likely are going to use the internet more often.

From the results, one can conclude that in general, when a person gets older, they have less interest in the use of the services offered. This aligns with the country of origin and the sex of a person, and as we saw from our analysis, the gender gap is better observed within the predicted probabilities of women. However, there is still hope the gap can be minimized and why not eliminated. Moreover, let us not forget the assumption we made in the beginning, that if a person has a higher education level, therefore has a higher household income, therefore leaves in a country with high standard living and the opposite - ignoring the minor exceptions. Finally, our results match the bibliography analysis too, where women are more likely to use less the internet than men.

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## Appendix

## Probit Models

## Occasional_Use

. probit Ocassional_Use Male Medium_educ High_educ Medium_inc Average_inc High_inc Age_25_36 Age_37_50 Age_51_65 Age_66_AO BE BG CY > CZ DE DK EE FI FR HR HU IE IS IT LT LU LV ME MK NL NO PL PT RO RS SE SI SK Year_2004 Year_2006 Year_2008 Year_2010 Year_2016 Year_ > 2018 Year_2020

Iteration 0: log likelihood $=\mathbf{- 7 2 1 1 0 . 0 6 2}$
Iteration 1: log likelihood $=-62646.579$
Iteration 2: $\log$ likelihood $=\mathbf{- 6 2 2 9 0 . 5 5}$ Iteration 3: log likelihood = -62288.92
Iteration 4: $\quad$ log likelihood $=\mathbf{- 6 2 2 8 8 . 9 2}$

Probit regression

Number of obs $=178,128$ LR chi2(45) = 19642.29 Prob > chi2 $=0.0000$ Pseudo R2 $=0.1362$

| Ocassional_Use | Coefficient | Std. err. | z | $\mathrm{P}>\|\mathrm{z}\|$ | [95\% conf. | interval] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Male | -. 0709385 | . 0080811 | -8.78 | 0.000 | -. 0867772 | -. 0550997 |
| Medium_educ | -. 0617973 | . 0099741 | -6.20 | 0.000 | -. 0813462 | -. 0422485 |
| High_educ | -. 4394156 | . 0137404 | -31.98 | 0.000 | -. 4663463 | -. 4124849 |
| Medium_inc | . 0669319 | . 0110487 | 6.06 | 0.000 | . 0452769 | . 0885869 |
| Average_inc | . 0088649 | . 012395 | 0.72 | 0.474 | -. 0154289 | . 0331588 |
| High_inc | -. 1646893 | . 0165896 | -9.93 | 0.000 | -. 1972043 | -. 1321743 |
| Age_25_36 | . 2014184 | . 0189926 | 10.61 | 0.000 | . 1641936 | . 2386433 |
| Age_37_50 | . 5288075 | . 0174287 | 30.34 | 0.000 | . 4946479 | . 5629671 |
| Age_51_65 | . 7305765 | . 0170065 | 42.96 | 0.000 | . 6972445 | . 7639085 |
| Age_66_AO | . 6939991 | . 0175049 | 39.65 | 0.000 | . 65969 | . 7283082 |
| BE | . 024288 | . 0405519 | 0.60 | 0.549 | -. 0551923 | . 1037684 |
| BG | . 1603165 | . 0433241 | 3.70 | 0.000 | . 0754029 | . 2452301 |
| cy | . 3561664 | . 0554009 | 6.43 | 0.000 | . 2475826 | . 4647501 |
| cz | . 0829184 | . 0401213 | 2.07 | 0.039 | . 004282 | . 1615548 |
| DE | -. 0060414 | . 0397382 | -0.15 | 0.879 | -. 0839269 | . 0718441 |
| DK | -. 1945627 | . 0420149 | -4.63 | 0.000 | -. 2769104 | -. 1122151 |
| EE | . 2274901 | . 0414808 | 5.48 | 0.000 | . 1461892 | . 3087909 |
| FI | -. 0466078 | . 0448208 | -1.04 | 0.298 | -. 134455 | . 0412393 |
| FR | -. 0856549 | . 0410716 | -2.09 | 0.037 | -. 1661538 | -. 0051559 |
| HR | . 3578611 | . 0434231 | 8.24 | 0.000 | . 2727534 | . 4429689 |
| HU | -. 0628838 | . 0425361 | -1.48 | 0.139 | -. 1462531 | . 0204855 |
| IE | . 1269287 | . 0441876 | 2.87 | 0.004 | . 0403226 | . 2135348 |
| IS | -. 177573 | . 0575492 | -3.09 | 0.002 | -. 2903673 | -. 0647787 |
| IT | . 2164296 | . 0460199 | 4.70 | 0.000 | . 1262322 | . 3066271 |
| LT | . 2663997 | . 0428524 | 6.22 | 0.000 | . 1824105 | . 3503889 |
| LU | -. 0776061 | . 0503374 | -1.54 | 0.123 | -. 1762656 | . 0210534 |
| LV | . 2542496 | . 0488533 | 5.20 | 0.000 | . 158499 | . 3500002 |
| ME | . 4453707 | . 0538582 | 8.27 | 0.000 | . 3398107 | . 5509308 |
| MK | . 4145818 | . 0660908 | 6.27 | 0.000 | . 2850462 | . 5441175 |
| NL | -. 1702987 | . 040627 | -4.19 | 0.000 | -. 2499262 | -. 0906712 |
| NO | -. 1740337 | . 0409898 | -4.25 | 0.000 | -. 2543722 | -. 0936952 |
| PL | . 0966318 | . 0405315 | 2.38 | 0.017 | . 0171915 | . 1760721 |
| PT | . 2213819 | . 0457829 | 4.84 | 0.000 | . 1316491 | . 3111147 |
| R0 | . 464917 | . 0508148 | 9.15 | 0.000 | . 365322 | . 5645121 |
| RS | . 4243642 | . 0564675 | 7.52 | 0.000 | . 31369 | . 5350384 |
| SE | -. 2727819 | . 0511278 | -5.34 | 0.000 | -. 3729905 | -. 1725733 |
| SI | . 4658542 | . 0401611 | 11.60 | 0.000 | . 38714 | . 5445685 |
| SK | . 3863539 | . 0425688 | 9.08 | 0.000 | . 3029205 | . 4697872 |
| Year_2004 | -. 1246296 | . 017094 | -7.29 | 0.000 | -. 1581332 | -. 091126 |
| Year_2006 | -. 3025116 | . 0184847 | -16.37 | 0.000 | -. 3387409 | -. 2662822 |
| Year_2008 | -. 3828018 | . 0177619 | -21.55 | 0.000 | -. 4176146 | -. 347989 |
| Year_2010 | -. 5223293 | . 0173678 | -30.07 | 0.000 | -. 5563696 | -. 488289 |
| Year_2016 | -1.163783 | . 019703 | -59.07 | 0.000 | -1. 202401 | -1.125166 |
| Year_2018 | -1. 221881 | . 0191668 | -63.75 | 0.000 | -1.259448 | -1.184315 |
| Year_2020 | -1. 242932 | . 021432 | -57.99 | 0.000 | -1.284938 | -1.200926 |
| _cons | -. 9117793 | . 0436437 | -20.89 | 0.000 | -. 9973195 | -. 8262392 |

. probit Ocassional_Use i.Medium_educ i.High_educ i.Medium_inc i.Average_inc i.High_inc i.Age_25_36 i.Age_37_50 i.Age_51_65 i.Age_66_A0 i.
> BE i.BG i.CY i.CZ i.DE i.DK i.EE i.FI i.FR i.HR i.HU i.IE i.IS i.IT i.LT i.LU i.LV i.ME i.MK i.NL i.NO i.PL i.PT i.RO i.RS i.SE i.SI i.S
> K i.Year_2004 i.Year_2006 i.Year_2008 i.Year_2010 i.Year_2016 i.Year_2018 i.Year_2020 if Male==1
Iteration 0: $\quad \log$ likelihood $=\mathbf{- 3 2 4 5 4 . 6 7 7}$
Iteration 1: $\quad \log$ likelihood $=\mathbf{- 2 8 2 9 9 . 6 6 3}$
Iteration 2: $\log$ likelihood $=\mathbf{- 2 8 1 3 3 . 7 7 5}$
Iteration 3: $\log$ likelihood $=\mathbf{- 2 8 1 3 3 . 1 0 1}$
Iteration 4: $\quad \log$ likelihood $=\mathbf{- 2 8 1 3 3 . 1 0 1}$
Probit regression
Number of obs $=84,028$
LR chi2(44) $=\mathbf{8 6 4 3 . 1 5}$ Prob > chi2 $=0.0000$
Log likelihood = - 28133.101
Pseudo R2 $=0.1332$

| Ocassional_Use | Coefficient | Std. err. | z | $\mathrm{P}>\|\mathrm{z}\|$ | [95\% conf. | interval] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.Medium_educ | -. 0798047 | . 0149715 | -5.33 | 0.000 | -. 1091484 | -. 050461 |
| 1.High_educ | -. 500126 | . 0211583 | -23.64 | 0.000 | -. 5415955 | -. 4586564 |
| 1.Medium_inc | . 0435025 | . 0170717 | 2.55 | 0.011 | . 0100427 | . 0769624 |
| 1.Average_inc | -. 0341735 | . 0186717 | -1.83 | 0.067 | -. 0707694 | . 0024224 |
| 1.High_inc | -. 2146318 | . 0241913 | -8.87 | 0.000 | -. 2620459 | -. 1672177 |
| 1.Age_25_36 | . 1622384 | . 0272223 | 5.96 | 0.000 | . 1088837 | . 2155931 |
| 1.Age_37_50 | . 4724496 | . 0249162 | 18.96 | 0.000 | . 4236147 | . 5212846 |
| 1.Age_51_65 | . 7047738 | . 0242196 | 29.10 | 0.000 | . 6573042 | . 7522434 |
| 1.Age_66_A0 | . 6874029 | . 0251201 | 27.36 | 0.000 | . 6381684 | . 7366373 |
| 1.BE | -. 0561698 | . 0599963 | -0.94 | 0.349 | -. 1737604 | . 0614207 |
| 1.BG | . 1518756 | . 0643083 | 2.36 | 0.018 | . 0258337 | . 2779175 |
| 1.CY | . 3406837 | . 0826084 | 4.12 | 0.000 | . 1787742 | . 5025933 |
| $1 . \mathrm{CZ}$ | . 0943054 | . 0592366 | 1.59 | 0.111 | -. 0217963 | . 2104071 |
| 1.DE | -. 0615456 | . 0585923 | -1.05 | 0.294 | -. 1763843 | . 0532931 |
| 1.DK | -. 2087093 | . 0615288 | -3.39 | 0.001 | -. 3293035 | -. 0881151 |
| $1 . \mathrm{EE}$ | . 2064631 | . 0619972 | 3.33 | 0.001 | . 0849509 | . 3279754 |
| 1.FI | -. 1064387 | . 0661196 | -1.61 | 0.107 | -. 2360307 | . 0231533 |
| 1.FR | -. 0864121 | . 0607308 | -1.42 | 0.155 | -. 2054422 | . 0326181 |
| 1.HR | . 3800338 | . 0643654 | 5.90 | 0.000 | . 2538799 | . 5061877 |
| 1. HU | -. 0300653 | . 0632154 | -0.48 | 0.634 | -. 1539653 | . 0938346 |
| 1.IE | . 1070209 | . 0649996 | 1.65 | 0.100 | -. 0203761 | . 2344179 |
| 1.IS | -. 205533 | . 0837574 | -2.45 | 0.014 | -. 3696945 | -. 0413715 |
| 1.IT | . 1662726 | . 0680791 | 2.44 | 0.015 | . 0328401 | . 2997051 |
| 1.LT | . 2987337 | . 0654925 | 4.56 | 0.000 | . 1703708 | . 4270965 |
| 1.LU | -. 1013335 | . 0730795 | -1.39 | 0.166 | -. 2445665 | . 0418996 |
| 1.LV | . 3272424 | . 0759476 | 4.31 | 0.000 | . 1783878 | . 4760969 |
| 1.ME | . 4530131 | . 0764267 | 5.93 | 0.000 | . 3032195 | . 6028066 |
| 1.MK | . 4553283 | . 0954949 | 4.77 | 0.000 | . 2681618 | . 6424949 |
| 1.NL | -. 1849449 | . 0602842 | -3.07 | 0.002 | -. 3030997 | -. 0667901 |
| 1.NO | -. 2676155 | . 0603794 | -4.43 | 0.000 | -. 3859569 | -. 1492741 |
| 1.PL | . 1032391 | . 0598073 | 1.73 | 0.084 | -. 013981 | . 2204591 |
| 1.PT | . 1420001 | . 0700254 | 2.03 | 0.043 | . 0047528 | . 2792473 |
| 1.R0 | . 4467451 | . 0752602 | 5.94 | 0.000 | . 2992377 | . 5942525 |
| 1.RS | . 4468785 | . 0820194 | 5.45 | 0.000 | . 2861234 | . 6076335 |
| 1.SE | -. 2394447 | . 0730673 | -3.28 | 0.001 | -. 3826539 | -. 0962355 |
| 1.SI | . 4595388 | . 0593445 | 7.74 | 0.000 | . 3432257 | . 575852 |
| 1.SK | . 4190424 | . 0630421 | 6.65 | 0.000 | . 2954821 | . 5426027 |
| 1.Year_2004 | -. 096193 | . 0251367 | -3.83 | 0.000 | -. 1454601 | -. 0469259 |
| 1.Year_2006 | -. 2587394 | . 0272333 | -9.50 | 0.000 | -. 3121157 | -. 2053632 |
| 1.Year_2008 | -. 3138275 | . 0261009 | -12.02 | 0.000 | -. 3649844 | -. 2626706 |
| 1.Year_2010 | -. 4523653 | . 0254775 | -17.76 | 0.000 | -. 5023003 | -. 4024304 |
| 1.Year_2016 | -1.081276 | . 0289549 | -37.34 | 0.000 | -1.138027 | -1.024526 |
| 1.Year_2018 | -1.12465 | . 0281402 | -39.97 | 0.000 | -1.179804 | -1.069496 |
| 1.Year_2020 | -1.133844 | . 03155 | -35.94 | 0.000 | -1.195681 | -1.072007 |
| _cons | -. 9508126 | . 0642061 | -14.81 | 0.000 | -1.076654 | -. 824971 |

## Occasional_Use if Male==0



## Usual_Use

- probit Usual_Use Male Medium_educ High_educ Medium_inc Average_inc High_inc Age_25_36 Age_37_50 Age_51_65 Age_66_AO BE BG CY CZ DE DK EE FI F > R HR HU IE IS IT LT LU LV ME MK NL NO PL PT RO RS SE SI SK Year_2004 Year_2006 Year_2008 Year_2010 Year_2016 Year_2018 Year_2020

Iteration 0: $\quad \log$ likelihood $=-117133.06$
Iteration 1: $\quad \log$ likelihood $=-69650.723$
Iteration 2: $\quad \log$ likelihood $=-68440.897$
Iteration 3: $\quad \log$ likelihood $=-68436.823$
Iteration 4: $\quad \log$ likelihood $=-68436.822$

| Probit regression | Number of obs $=\mathbf{1 7 8 , 1 2 8}$ |
| :--- | :--- |
|  | LR chi2(45) |
|  | $=\mathbf{9 7 3 9 2 . 4 9}$ |
| Log likelihood $=-\mathbf{6 8 4 3 6 . 8 2 2}$ | Prob $>$ chi2 |$=0.0000$


| Usual_Use | Coefficient | Std. err. | z | P> $\mid$ z $\mid$ | [95\% conf. interval] |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Male | . 0801574 | . 0077871 | 10.29 | 0.000 | . 0648951 | . 0954198 |
| Medium_educ | . 5514076 | . 0098303 | 56.09 | 0.000 | . 5321407 | . 5706746 |
| High_educ | 1.273994 | . 0132632 | 96.05 | 0.000 | 1.247998 | 1.299989 |
| Medium_inc | . 3679274 | . 0107355 | 34.27 | 0.000 | . 3468861 | . 3889686 |
| Average_inc | . 6631328 | . 0116901 | 56.73 | 0.000 | . 6402206 | . 6860449 |
| High_inc | . 9125606 | . 0158077 | 57.73 | 0.000 | . 8815781 | . 943543 |
| Age_25_36 | -. 6055794 | . 0178983 | -33.83 | 0.000 | -. 6406595 | -. 5704993 |
| Age_37_50 | -. 9768665 | . 0167749 | -58.23 | 0.000 | -1.009745 | -. 9439884 |
| Age_51_65 | -1.562448 | . 0165478 | -94.42 | 0.000 | -1.594881 | -1.530015 |
| Age_66_A0 | -2.404376 | . 0176012 | -136.60 | 0.000 | -2.438874 | -2.369878 |
| BE | . 0972933 | . 0325642 | 2.99 | 0.003 | . 0334687 | . 1611179 |
| BG | -. 7382549 | . 0348313 | -21.20 | 0.000 | -. 806523 | -. 6699868 |
| CY | -. 652405 | . 0512798 | -12.72 | 0.000 | -. 7529115 | -. 5518985 |
| CZ | -. 0898572 | . 0320624 | -2.80 | 0.005 | -. 1526984 | -. 027016 |
| DE | . 0337041 | . 0312868 | 1.08 | 0.281 | -. 0276169 | . 0950252 |
| DK | . 753727 | . 0344332 | 21.89 | 0.000 | . 6862392 | . 8212148 |
| EE | -. 0486036 | . 0335395 | -1.45 | 0.147 | -. 1143399 | . 0171327 |
| FI | . 4863881 | . 0367155 | 13.25 | 0.000 | . 4144269 | . 5583492 |
| FR | . 1443835 | . 0322893 | 4.47 | 0.000 | . 0810976 | . 2076694 |
| HR | -. 4717531 | . 0363382 | -12.98 | 0.000 | -. 5429747 | -. 4005314 |
| HU | -. 4477427 | . 0337866 | -13.25 | 0.000 | -. 5139633 | -. 3815221 |
| IE | . 2896008 | . 0360709 | 8.03 | 0.000 | . 2189032 | . 3602984 |
| IS | . 9640499 | . 05171 | 18.64 | 0.000 | . 8627001 | 1.0654 |
| IT | -. 1054201 | . 0368953 | -2.86 | 0.004 | -. 1777336 | -. 0331067 |
| LT | -. 4602998 | . 0345003 | -13.34 | 0.000 | -. 527919 | -. 3926805 |
| LU | . 221694 | . 0452194 | 4.90 | 0.000 | . 1330655 | . 3103225 |
| LV | -. 1989765 | . 0426451 | -4.67 | 0.000 | -. 2825593 | -. 1153937 |
| ME | -. 3976853 | . 045803 | -8.68 | 0.000 | -. 4874576 | -. 307913 |
| MK | -. 6114462 | . 056201 | -10.88 | 0.000 | -. 7215981 | -. 5012943 |
| NL | . 8495331 | . 0329261 | 25.80 | 0.000 | . 7849992 | . 9140671 |
| NO | . 6433813 | . 0331607 | 19.40 | 0.000 | . 5783875 | . 7083752 |
| PL | -. 3651727 | . 0330428 | -11.05 | 0.000 | -. 4299355 | -. 30041 |
| PT | -. 185599 | . 038115 | -4.87 | 0.000 | -. 2603031 | -. 1108949 |
| RO | -. 9647258 | . 0498409 | -19.36 | 0.000 | -1.062412 | -. 8670394 |
| RS | -. 7398406 | . 0475143 | -15.57 | 0.000 | -. 8329669 | -. 6467144 |
| SE | . 8597391 | . 0425032 | 20.23 | 0.000 | . 7764345 | . 9430438 |
| SI | -. 1096625 | . 0330083 | -3.32 | 0.001 | -. 1743576 | -. 0449674 |
| SK | -. 5802518 | . 0359088 | -16.16 | 0.000 | -. 6506318 | -. 5098718 |
| Year_2004 | . 3085332 | . 0187848 | 16.42 | 0.000 | . 2717156 | . 3453508 |
| Year_2006 | . 6655916 | . 0197606 | 33.68 | 0.000 | . 6268615 | . 7043217 |
| Year_2008 | 1.008981 | . 0191206 | 52.77 | 0.000 | . 9715057 | 1.046457 |
| Year_2010 | 1.298972 | . 018777 | 69.18 | 0.000 | 1.26217 | 1.335774 |
| Year_2016 | 1.930474 | . 0198892 | 97.06 | 0.000 | 1.891492 | 1.969456 |
| Year_2018 | 2.125664 | . 01984 | 107.14 | 0.000 | 2.086778 | 2.164549 |
| Year_2020 | 2.326738 | . 0218487 | 106.49 | 0.000 | 2.283915 | 2.36956 |
| _cons | -. 7436404 | . 0366381 | -20.30 | 0.000 | -. 8154496 | -. 6718311 |



| Usual_Use | Coefficient | Std. err. | z | P> $\mid$ z $\mid$ | [95\% conf. | interval] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.Medium_educ | . 5074218 | . 014353 | 35.35 | 0.000 | . 4792905 | . 5355532 |
| 1.High_educ | 1.306402 | . 0200401 | 65.19 | 0.000 | 1.267124 | 1.34568 |
| 1.Medium_inc | . 418384 | . 01639 | 25.52 | 0.000 | . 3861802 | . 4504278 |
| 1.Average_inc | . 7617253 | . 0174671 | 43.61 | 0.000 | . 7274905 | . 7959602 |
| 1.High_inc | 1.033744 | . 0227164 | 45.51 | 0.000 | . 9892205 | 1.078267 |
| 1.Age_25_36 | -. 5358324 | . 0254523 | -21.05 | 0.000 | -. 5857179 | -. 4859468 |
| 1.Age_37_50 | -. 9474469 | . 0237961 | -39.82 | 0.000 | -. 9948864 | -. 9008873 |
| 1.Age_51_65 | -1.533441 | . 0234287 | -65.45 | 0.000 | -1.57936 | -1.487521 |
| 1.Age_66_A0 | -2.276461 | . 0249103 | -91.39 | 0.000 | -2.325284 | -2.227638 |
| 1.BE | . 1524578 | . 0475792 | 3.20 | 0.001 | . 0592042 | . 2457114 |
| 1.BG | -. 783102 | . 0514177 | -15.23 | 0.000 | -. 8838789 | -. 6823251 |
| 1.cy | -. 6232737 | . 0739008 | -8.43 | 0.000 | -. 7681165 | -. 4784308 |
| 1.cz | -. 1179876 | . 0470301 | -2.51 | 0.012 | -. 210165 | -. 0258103 |
| 1.DE | . 0819651 | . 0456276 | 1.80 | 0.072 | -. 0074634 | . 1713936 |
| 1.DK | . 7154495 | . 0496564 | 14.41 | 0.000 | . 6181157 | . 8127653 |
| $1 . \mathrm{EE}$ | -. 1114898 | . 0497344 | -2.24 | 0.025 | -. 2089675 | -. 0140121 |
| $1 . \mathrm{FI}$ | . 4699636 | . 053281 | 8.82 | 0.000 | . 3655348 | . 5743924 |
| 1.FR | . 1074244 | . 0474183 | 2.27 | 0.023 | . 0144861 | . 2003626 |
| 1.HR | -. 5146156 | . 0535482 | -9.61 | 0.000 | -. 6195682 | -. 4096629 |
| 1.HU | -. 5139853 | . 0500627 | -10.27 | 0.000 | -. 6121064 | -. 4158643 |
| 1.IE | . 2296702 | . 0524216 | 4.38 | 0.000 | . 1269257 | . 3324148 |
| 1.IS | . 8480324 | . 0722495 | 11.74 | 0.000 | . 7064261 | . 9896388 |
| 1.IT | -. 0160331 | . 0542537 | -0.30 | 0.768 | -. 1223684 | . 0903022 |
| 1.LT | -. 5361311 | . 0530144 | -10.11 | 0.000 | -. 6400374 | -. 4322248 |
| 1.LU | . 2081082 | . 0631701 | 3.29 | 0.001 | . 0842971 | . 3319192 |
| 1.LV | -. 2696785 | . 0674929 | -4.00 | 0.000 | -. 4019621 | -. 1373948 |
| 1.ME | -. 413646 | . 064043 | -6.46 | 0.000 | -. 5391679 | -. 288124 |
| 1.MK | -. 7358998 | . 0816115 | -9.02 | 0.000 | -. 8958554 | -. 5759441 |
| 1.NL | . 8116443 | . 0484538 | 16.75 | 0.000 | . 7166766 | . 906612 |
| 1.No | . 6987004 | . 0481307 | 14.52 | 0.000 | . 604366 | . 7930349 |
| 1.PL | -. 3697807 | . 0483064 | -7.65 | 0.000 | -. 4644595 | -. 2751019 |
| 1.PT | -. 1224142 | . 0575028 | -2.13 | 0.033 | -. 2351177 | -. 0097107 |
| 1.R0 | -. 9961717 | . 0730215 | -13.64 | 0.000 | -1.139291 | -. 8533052 |
| 1.RS | -. 7809297 | . 0685668 | -11.39 | 0.000 | -. 9153182 | -. 6465412 |
| 1.SE | . 7574393 | . 0602394 | 12.57 | 0.000 | . 6393722 | . 8755064 |
| 1.SI | -. 1079044 | . 0483021 | -2.23 | 0.025 | -. 2025748 | -. 013234 |
| 1.SK | -. 5800046 | . 0528254 | -10.98 | 0.000 | -. 6835404 | -. 4764687 |
| 1.Year_2004 | . 2604769 | . 0263327 | 9.89 | 0.000 | . 2088657 | . 3120882 |
| 1.Year_2006 | . 5880127 | . 0278706 | 21.10 | 0.000 | . 5333873 | . 6426381 |
| 1.Year_2008 | . 9051554 | . 0269063 | 33.64 | 0.000 | . 8524201 | . 9578907 |
| 1.Year_2010 | 1.169562 | . 0263719 | 44.35 | 0.000 | 1.117874 | 1.22125 |
| 1.Year_2016 | 1.785014 | . 0279974 | 63.76 | 0.000 | 1.73014 | 1.839888 |
| 1.Year_2018 | 1.956642 | . 0278834 | 70.17 | 0.000 | 1.901991 | 2.011292 |
| 1.Year_2020 | 2.114302 | . 0310134 | 68.17 | 0.000 | 2.053517 | 2.175087 |
| _cons | -. 6330489 | . 0531283 | -11.92 | 0.000 | -. 7371785 | -. 5289192 |

## Usual_Use if Male==0

. probit Usual_Use i.Medium_educ i.High_educ i.Medium_inc i.Average_inc i.High_inc i.Age_25_36 i.Age_37_50 i.Age_51_65 i.Age_66_AO i.BE i.BG i. > CY i.CZ i.DE i.DK i.EE i.FI i.FR i.HR i.HU i.IE i.IS i.IT i.LT i.LU i.LV i.ME i.MK i.NL i.NO i.PL i.PT i.RO i.RS i.SE i.SI i.SK i.Year_2004 i > .Year_2006 i.Year_2008 i.Year_2010 i.Year_2016 i.Year_2018 i.Year_2020 if Male==0

Iteration 0: $\quad \log$ likelihood $=-63033.081$
Iteration 1: $\log$ likelihood $=-36008.203$
Iteration 2: $\log$ likelihood $=-35450.508$
Iteration 3: $\log$ likelihood $=-35446.145$
Iteration 4: $\log$ likelihood $=-35446.144$
Probit regression

| Number of obs | $=\mathbf{9 4 , 1 0 0}$ |
| :--- | ---: |
| LR chi2 $(\mathbf{4 4 )}$ | $=\mathbf{5 5 1 7 3 . 8 7}$ |
| Prob $>$ chi2 | $=0.0000$ |
| Pseudo R2 | $=\mathbf{0 . 4 3 7 7}$ |

Log likelihood $=-35446.144$

| Usual_Use | Coefficient | Std. err. | z | $P>\|z\|$ | [95\% conf. interval] |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.Medium_educ | . 5863025 | . 0136227 | 43.04 | 0.000 | . 5596024 | . 6130025 |
| 1.High_educ | 1.241156 | . 0179369 | 69.20 | 0.000 | 1.206 | 1.276311 |
| 1.Medium_inc | . 3405224 | . 0143734 | 23.69 | 0.000 | . 312351 | . 3686937 |
| 1.Average_inc | . 58254 | . 0159362 | 36.55 | 0.000 | . 5513057 | . 6137743 |
| 1.High_inc | . 806786 | . 0223132 | 36.16 | 0.000 | . 7630529 | . 8505192 |
| 1.Age_25_36 | -. 6654023 | . 0252877 | -26.31 | 0.000 | -. 7149653 | -. 6158393 |
| 1.Age_37_50 | -1.006246 | . 0237599 | -42.35 | 0.000 | -1.052815 | -. 9596777 |
| 1.Age_51_65 | -1.60816 | . 0235089 | -68.41 | 0.000 | -1.654237 | -1.562084 |
| 1.Age_66_A0 | -2.559078 | . 0251195 | -101.88 | 0.000 | -2.608311 | -2.509844 |
| 1. BE | . 0381098 | . 0449238 | 0.85 | 0.396 | -. 0499392 | . 1261588 |
| 1.BG | -. 6965658 | . 0475523 | -14.65 | 0.000 | -. 7897665 | -. 6033651 |
| 1.CY | -. 692027 | . 0715526 | -9.67 | 0.000 | -. 8322675 | -. 5517865 |
| 1.CZ | -. 0682314 | . 0440342 | -1.55 | 0.121 | -. 1545368 | . 0180741 |
| 1.DE | -. 0253274 | . 043241 | -0.59 | 0.558 | -. 1100781 | . 0594234 |
| 1.DK | . 7979722 | . 0481345 | 16.58 | 0.000 | . 7036304 | . 892314 |
| 1.EE | . 0064922 | . 0456612 | 0.14 | 0.887 | -. 0830021 | . 0959865 |
| 1.FI | . 5132736 | . 050968 | 10.07 | 0.000 | . 4133781 | . 6131692 |
| 1.FR | . 1776546 | . 0442793 | 4.01 | 0.000 | . 0908688 | . 2644403 |
| 1.HR | -. 4390333 | . 0496892 | -8.84 | 0.000 | -. 5364223 | -. 3416443 |
| 1. HU | -. 396982 | . 046005 | -8.63 | 0.000 | -. 4871501 | -. 306814 |
| 1.IE | . 3461769 | . 0500655 | 6.91 | 0.000 | . 2480504 | . 4443034 |
| 1.IS | 1.117103 | . 0746694 | 14.96 | 0.000 | . 9707537 | 1.263453 |
| 1.IT | -. 1876249 | . 0505903 | -3.71 | 0.000 | -. 2867801 | -. 0884697 |
| 1.LT | -. 4289301 | . 0459824 | -9.33 | 0.000 | -. 5190539 | -. 3388062 |
| 1.LU | . 2160062 | . 0658515 | 3.28 | 0.001 | . 0869396 | . 3450728 |
| 1.LV | -. 1597621 | . 0557736 | -2.86 | 0.004 | -. 2690762 | -. 0504479 |
| 1.ME | -. 3467869 | . 0663255 | -5.23 | 0.000 | -. 4767825 | -. 2167912 |
| 1.MK | -. 4887476 | . 0782281 | -6.25 | 0.000 | -. 6420719 | -. 3354233 |
| 1.NL | . 8915366 | . 0451204 | 19.76 | 0.000 | . 8031023 | . 979971 |
| 1.NO | . 5845306 | . 0460892 | 12.68 | 0.000 | . 4941974 | . 6748639 |
| 1.PL | -. 3608241 | . 0455346 | -7.92 | 0.000 | -. 4500703 | -. 2715779 |
| 1.PT | -. 2410845 | . 0512569 | -4.70 | 0.000 | -. 3415462 | -. 1406227 |
| 1.RO | -. 9379324 | . 0683251 | -13.73 | 0.000 | -1.071847 | -. 8040177 |
| 1.RS | -. 698716 | . 0661733 | -10.56 | 0.000 | -. 8284133 | -. 5690186 |
| 1.SE | . 9732639 | . 0603556 | 16.13 | 0.000 | . 8549691 | 1.091559 |
| 1.SI | -. 1090151 | . 0454096 | -2.40 | 0.016 | -. 1980162 | -. 020014 |
| 1.SK | -. 5819575 | . 0491459 | -11.84 | 0.000 | -. 6782817 | -. 4856332 |
| 1.Year_2004 | . 3732233 | . 0270746 | 13.78 | 0.000 | . 320158 | . 4262886 |
| 1.Year_2006 | . 7634128 | . 0283036 | 26.97 | 0.000 | . 7079387 | . 8188868 |
| 1.Year_2008 | 1.133248 | . 0274509 | 41.28 | 0.000 | 1.079446 | 1.187051 |
| 1.Year_2010 | 1.449911 | . 0270266 | 53.65 | 0.000 | 1.39694 | 1.502882 |
| 1.Year_2016 | 2.102635 | . 0285799 | 73.57 | 0.000 | 2.04662 | 2.158651 |
| 1.Year_2018 | 2.317049 | . 0285465 | 81.17 | 0.000 | 2.261099 | 2.372999 |
| 1.Year_2020 | 2.557553 | . 03116 | 82.08 | 0.000 | 2.496481 | 2.618626 |
| _cons | -. 8007895 | . 0506557 | -15.81 | 0.000 | -. 9000729 | -. 7015061 |

