**Some experiences with a mix of web/postal surveys in Flanders-Belgium**

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In Flanders-Belgium as in many other countries funds for large scale face-to-face surveys, using a group of well-trained and reasonably paid interviewers, are not always available or difficult to obtain. This is not only the case for academic research but also for research done by government departments. Other modes than face-to-face interviewing are needed for data collection. The paper highlights experiences from recent mixed mode surveys organized by the Research Centre of the Flemish Government. Special attention goes to the following surveys: City monitor (2014), ISSP-Flanders-Belgium (2015) and Satisfaction barometer to monitor the perception of the services provided by the Flemish administration towards citizens (2016).[[1]](#footnote-1) The paper starts with an overview of the set-up of the different surveys. Secondly, using available information of the National population register the profile of respondents and non-respondents will be compared. Thirdly, the impact of the mailings is evaluated: do we get higher response rates using more mailings and how well does the realized sample represents the target population after different mailings? Fourthly, the focus moves further to the respondents and compares the profile of those who used the web mode or the paper mode. Finally, we wonder which lessons can be learned from those mixed-mode surveys.

1. Overview set-up surveys

The presented surveys in table 1 have in common that they all used a mixed-mode approach: web/postal self-completion. The use of the National Register to select the respondents (=named individuals) was another common feature. This implies that all respondents received an introduction letter and that the follow-up could be organized according a strict schedule of reminders. Nevertheless some differences between the surveys should also be mentioned. For instance, a paper questionnaire was sometimes already available in the first mailing (with the introduction letter), in other surveys this was only the case in one of the follow-up mailings. Secondly, the target population was not always completely the same as the lower age cut-off differed slightly across the surveys. Thirdly, the use of incentives ranged from no incentive at all over a conditional incentive for only a sample of the respondents to all respondents. Finally, the length and the subject also differed over the surveys.

1. Profile of respondents and non-respondents

The three mentioned surveys have their own fieldwork method history. It’s clear from table 2 that response rates in all three surveys dropped over the years. In this paper we only focus on the results of the City monitor 2014 (response rate 39,7%)[[2]](#footnote-2), ISSP Flanders-Belgium module citizenship (40,0%)[[3]](#footnote-3) and the Satisfaction barometer 2016 (38,0%). Bivariate analyses of (non-)response with some socio-demographics gives the following picture. In none of the surveys we find a significant relationship between response and gender, in all the surveys non-Belgians are underrepresented and only in the Satisfaction barometer respondents in Antwerp and Gent are underrepresented. For age and for the interaction gender by age the results are comparable in the City monitor and the Satisfaction barometer. In those surveys the 18-39 years old are underrepresented and the 60 years and older are overrepresented. The combination of gender and age reveals that in those surveys females and males aged 18-39 years are underrepresented and that males of 60 years and more are overrepresented. To the contrary, in the ISSP module citizenship the 60 years and older are underrepresented and females aged 18-39 years are overrepresented and females of 60 years or more are underrepresented.

Using logistic regression we can evaluate the net-effects of the different socio-demographics on the likelihood that persons selected in the sample will respond to the questionnaire. Table 3 presents the results of the logistic regression analysis with response (0/1 –no/yes) as dependent variable and gender (ref. cat. female), age (ref. cat. 18-39y), interaction term of gender by age, nationality (ref. cat. Belgian) and urbanization level (ref. cat. Antwerp and Gent) as independent variables. Overall the models have a rather low explained % of the variance in response (Nagelkerke R² ranges from 0,024 to 0,059). Although the fit of the models is rather low, some results are of interest. For females aged 18-39 years old with Belgian nationality and living in Antwerp or Gent the response is better in the ISSP module citizenship than in the City monitor and the Satisfaction barometer (odds ratio of respectively 0,836; 0,518 and 0,374). If we look at the group of males of 60 years and older with Belgian nationality and living in Antwerp and Gent, the results are very different. The odds ratio for being a respondent is respectively 0,677 in the ISSP module citizenship (0,836\*0,658\*0,541\*2,275), 1,057 in the City monitor and 0,839 in the Satisfaction barometer. For this group, the best result is obtained in the City monitor.

It’s clear from this analysis that predicting response using the available socio-demographics of the National Register is a rather weak strategy as the power to explain the variance in response is rather low. Furthermore, the way the significant variables predict response is not always the same across the three analyzed surveys.

1. Do we need four mailings?

In all three surveys four mailings were used in order to increase the number of respondents and to get a representative sample of the target population. However, as can be seen from table 1, the content of the mailings differed somewhat across the surveys. The impact of this different content on the number of respondents who used the web or postal mode to complete the questionnaire, will be made clear in the next section. Here, we first wonder whether it’s useful to have four mailings in order to increase the number of respondents and to get a representative sample.

To measure the impact of the number of the different mailings we do not only have to know the exact date of the mailings but also the exact receipt date of the returned completed questionnaire. Unfortunately, in the City monitor the exact receipt date was not coded and stored to the data file. We only know whether respondents received only the first two mailings or all four mailings. In the other two surveys the exact receipt date was coded and stored to the data file. To evaluate the impact of the number of the different mailings in those two surveys the following assumption was made: impact of mailing 1 = date of mailing 2 + 1 day; impact of mailing 2 = date of mailing 3 + 1 day; impact of mailing 3 = date of mailing 4 + 1 day; impact of mailing 4 = everything received after date mailing 4 + 1 day.

If only two mailings would have been used, 67% of the total response would have been reached in the City monitor (table 4). This figure drops to almost 61% in the ISSP module citizenship and drops even further to 46% in the Satisfaction barometer. The third mailing in the ISSP module citizenship as well as in the Satisfaction barometer was a very important one. It meant a gain of respectively 34% and almost 45% in the total response.

As the literature has shown, response rates are only one part of the story. Another important issue is whether the response is selective are not. To evaluate the selectivity of the response after the first two mailings and the response after all four mailings, we use (a) the National Register for known characteristics of the total population (gender by age, nationality, level of urbanization) and (b) the Labor Force Survey as a golden standard for level of education and paid work.[[4]](#footnote-4) The figures in table 5 represent the difference in % between the characteristics of the respondents and the characteristics of the known total population. Positive differences indicate an overrepresentation in the sample, negative differences an underrepresentation. Using the standardized residual (≥ 2 or ≤ 2) an indication is given of which cells contribute significantly to the total chi-square value (Haberman, 1978).

In the ISSP module citizenship after only two mailings there is an overrepresentation of women aged 18-39 years, of people with higher education and people with paid work. Following groups are underrepresented: women of 60 years and older, non-Belgians, people with maximum a degree of lower secondary education and people with no paid job. After four mailings, although those groups remain over/under represented, the decrease in the delta’s make clear that a better representation of the target population is realized. This conclusion does not hold completely for the Satisfaction barometer. After four mailings for some categories we get a better representation: women of 60 years and older and for the different levels of education. However, four mailings imply a worse representation for men aged 18-39 years and men 60 years or older, non-Belgians, for paid work and for some categories of urbanization.

1. The use of the web and postal mode

The use of the web and postal mode to complete the questionnaire is very different across the three surveys (table 4). In the City monitor only 22,7% of the respondents used the web mode, 57% in the Satisfaction barometer and 68% in the ISSP module citizenship. A simple although not complete satisfactory explanation has to do with the kind of mailings. At the first mailing respondents of the City monitor already received the paper questionnaire together with a letter with an URL link and an unique code to access the web questionnaire. The third mailing to those respondents who did not react to the first two mailings included again the paper questionnaire and the letter with the URL link and the unique code. In the other two surveys, only the third mailing contained a paper questionnaire. The first two mailings only contained a letter with the URL link, username and password. Only upon request by telephone or by mail a paper questionnaire could be send to the respondents. It’s clear from table 4 that in the latter two surveys respondents were pushed to the web. Only very few respondents asked explicitly for a paper questionnaire after the first two mailings holding only a letter with the link and access codes. However, we do not have a clear-cut clue why in the Satisfaction barometer the web mode was not used as much as in the ISSP module citizenship. In both modes the same number of mailings with the same kind of content was used, but a year later, in the Satisfaction barometer, the use of the web mode dropped with 11 % points.

1. Who uses the web or the postal mode?

To answer this question a logistic regression analysis was performed to ascertain the effects of gender, age, interaction term gender by age, nationality, urbanization (for the categorization see § 2), degree (ref. cat. maximum lower secondary education) and work (ref. cat. no paid work) on the likelihood that participants use the postal mode (dependent variable mode (0/1 – web/postal). A first and clear conclusion from table 6 is that we can better predict which mode people will use to complete the questionnaire than whether people will respond to the questionnaire. The Nagelkerke R² ranges from 0,135 up to 0,217.

Furthermore there are some similarities across all three surveys. On the one hand no significant net-effects are found for nationality and the interaction term gender by age. On the other hand level of education and gender has a significant net effect. Holding the other variables constant, the parameters make clear that the likelihood to make use of the postal mode decreases for the higher educated respondents and men. Remark however that the net effect of gender is only significant in the City monitor and the ISSP citizen module. On the contrary, the likelihood to use the postal mode increases for respondents of 60 years and older. Additionally, only in the City monitor there is a net effect of work with, holding other variables constant, a reduction in the likelihood of using the postal mode for respondents with paid work.

All in all, although the percentage of respondents using the web or postal mode differs across the three surveys, the profile of the respondents using one mode instead of the other has some important similarities.

1. Some lessons learned from three mixed-mode surveys in Flanders and some open questions

* Using a mixed mode approach (web/postal) a response rate of roughly 40% was reached in all three surveys. However, compared to the former editions this meant a drop in the response rate in all three surveys. It’s unclear whether this drop is only due to the change in mode. Can this drop be explained by a worsening survey climate? However, the general survey climate in Flanders indicates that reasonable response rates can still be reached. Barbier et al. (2016) show that within the same surveys one can compensate for a negative evolution by increasing the efforts to ensure a complete interview. One possible increased effort for the City monitor and the Satisfaction barometer would imply that questionnaires are not only available in Dutch but also in other languages. Over the years Flanders is getting more and more diverse with more people coming from different countries speaking more different languages. To give just one figure: in the year 2000 294000 persons with a non-Belgian nationality were living in the Flemish region, in 2016 this number increased up to 526000 (Vlaanderen in cijfers, 2016).
* Given the available sample information, predicting who will respond or not is not that easy. The explained variance is rather low in all three surveys. If there are net effects they are not always the same across the three surveys.
* The more mailings are used the higher response rates are reached. However, more mailings may not always be a good idea to get a better representative sample of the target population.
* We are better in predicting who will use the web or the postal mode to respond to the questionnaire. The net effects of level of education and age are similar across the three surveys. Increasing age was associated with an increased likelihood of using the postal mode. There was a decrease of the likelihood for higher educated respondents and men, holding other variables constant.
* Still an open question is how we can scrutinize the impact of the different characteristics of each survey (e.g. topic, length, open/closed ended questions, use of incentive, …) on response rates on the one hand and the use of the web or postal mode on the other hand.
* If we want respondents to use the web, the first mailing should only contain an introduction letter with the link and access codes to the web survey.
* Flanders seems not be ready for a web only mode. Too much selectivity in the response would be introduced.
* In the spring of 2017 two other mixed mode (web/postal) surveys were launched: the Municipality monitor in 294 municipalities in Flanders and a new edition of the City monitor in the 13 centre cities. Two interesting additional cases to check and elaborate the gained insights.

References

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Table 1. Set-up surveys

|  |  |  |  |
| --- | --- | --- | --- |
|  | **City monitor** | **ISSP Flanders-Belgium** | **Satisfaction barometer** |
| **Content** | Quality of life of citizens living in 13 centre cities of Flanders. | Modules Citizenship 2014 + Work orientation 2015 | To monitor the perception of the services provided by the Flemish administration towards citizens |
| **Questionnaire** | N questions range 202 - 231 | N questions range 160 - 173 | N questions range 97 - 145 |
|  | Substantive variables n=188 - 217 + standard background variables n=14 | Substantive variables n=132 (60 for each module + 12 optionals) + standard background variables n=28-41 | Substantive variables n=84 - 132 + standard background variables n=13 |
|  | 3 background variables at the beginning of the questionnaire, the rest at the end | Background variables at the beginning and at the end | All background variables at the beginning of the questionnaire |
|  | An answer is required, otherwise not possible to continu in the web mode: 0 questions. | An answer is required, otherwise not possible to continu in the web mode: 8 socio-demographic questions in the beginning of the questionnaire. | An answer is required, otherwise not possible to continu in the web mode: 0 questions. |
|  | Closed ended questions, except 'if otherwise, describe' in max. n=12 questions | Closed ended questions, except 'if otherwise, describe' in max. n=9 questions and 2 real open questions (job description) | Closed ended questions, except 'if otherwise, describe' in max. n=9 questions |
|  | A number is expected in max. 17 questions | A number is expected in max. 15 questions | A number is expected in only 1 question |
|  | Open question at the end: If you have any comments, please write them below | Open question at the end: If you have any comments, please write them below | / |
|  | Language: only in Dutch | Language: web mode: choice between Dutch and French; postal: default Dutch, but upon request French | Language: only in Dutch |
| **Fieldwork period** | Spring 2014 | Autumn 2015 | Autumn 2016 |
| **Target population** | Residents of 16 years or more, living in private households | Residents of 18 years or more, living in private households | Residents of 18 years or more, living in private households |
| **Sampling design** | Simple random sampling procedure per centre city with an oversampling of districts in some cities | One stage simple random sampling procedure in the Flemish Region | One stage simple random sampling procedure in the Flemish Region |
| **Sample frame** | Population register in each centre city - named individuals | National population register - named individuals | National population register - named individuals |
| **Total number of starting names / gross sample** | N=48700 | N=2500 | N=3000 |
|  |  |  |  |
|  | **City monitor** | **ISSP Flanders-Belgium** | **Satisfaction barometer** |
| **Fieldwork method history** | *CATI*: 2004 and 2006; *Postal*: 2008 and 2011; *Mixed-mode web/postal*: 2014 and 2017 | *Drop-off questionnaire* one module linked with yearly face-to-face survey: 2002-2011; *Postal*: 2 modules 2012 and 2013; *Mixed-mode web/postal*: 2014 and 2015 | *Postal*: 2011 and 2013; *Mixed-mode web/postal*: 2016 |
| **Number and content of the mailings** | Mailing 1 - Tuesday 22/04/'14 - letter with URL link and unique code + paper questionnaire and return envelope free of charge | Mailing 1 - Monday 12/10/'15 - letter with URL link, username and password / possibility to ask for a paper questionnaire | Mailing 1 - Thursday 13/10/'16 - letter with URL link, username and password / possibility to ask for a paper questionnaire |
|  | Mailing 2 - Tuesday 29/04/'14 - thank you/reminder card | Mailing 2 - Tuesday 20/10/'15 - 1st letter to remind with URL link, username and password only to those respondents who did not react to first mailing / possibility to ask for a paper questionnaire | Mailing 2 - Friday 21/10/'16 - thank you / reminder letter with URL link, username, password / possibility to ask for a paper questionnaire |
|  | Mailing 3 - Tuesday 20/05/'14 - letter with URL link and unique code + paper questionnaire and return envelope free of charge only to those respondents who did not react to first two mailings | Mailing 3 - Monday 09/11/'15 - 2nd letter to remind with URL link, username and password + paper questionnaire and return envelope free of charge only to those respondents who did not react to first two mailings | Mailing 3 - Tuesday 15/11/'16 - 2nd letter to remind with URL link, username and password + paper questionnaire and return envelope free of charge only to those respondents who did not react to first two mailings |
|  | Mailing 4 - Tuesday 27/05/'14 - thank you/reminder card only to those respondents who did not react to first two mailings | Mailing 4 - Monday 07/12/'15 - 3th letter to remind with URL link, username and password only to those respondents who did not react to first three mailings / possibility to ask for a paper questionnaire | Mailing 4 - Wednesday 9/12/'16 - thank you / reminder letter with URL link, username, password only to those respondents who did not react to first three mailings / possibility to ask for a paper questionnaire |
|  | Mailing 5 - June 2015 - Thank you letter + incentive to 10000 respondents | Mailing 5 - December 2015 - Thank you letter + incentive to all respondents | / |
| **Institute responsible for printing/programming, handling, mailing, follow-up, processing** | Private market research institute | In house | In house |
| **Incentive** | Promised 6,00€ voucher for 10000 randomly selected respondents with a completed returned questionnaire | Promised 6,00€ voucher for all respondents with a completed returned questionnaire | No |

Table 2. Response rates over the years

|  |  |  |  |
| --- | --- | --- | --- |
| **Fielding year** | **City monitor** | **ISSP Flanders-Belgium** | **Satisfaction barometer** |
| 2002 |  | 64,0% |  |
| 2003 |  |  |  |
| 2004 | 55,0% | 54,4% |  |
| 2005 |  | 56,9% |  |
| 2006 | 49,0% | 59,1% |  |
| 2007 |  | 53,7% |  |
| 2008 | 48,0% | 54,4% |  |
| 2009 |  | 46,7% |  |
| 2010 |  | 48,3% |  |
| 2011 | 46,0% | 48,0% | 42,8% |
| 2012 |  |  |  |
| 2013 |  | 43,6% | 43,4% |
| 2014 | 39,7% |  |  |
| 2015 |  | 40,0% |  |
| 2016 |  |  | 38,0% |
|  |  |  |  |
| Drop-off with f-to-f | Response rates calculated on gross sample |  |  |
| CATI |  |  |  |
| Postal |  |  |  |
| Web/postal |  |  |  |

Table 3. Multivariate analysis of profile of (non-)respondents

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **City monitor** | | | **ISSP Flanders-Belgium** | | | **Satisfaction barometer** | | |
|  | Exp(B) | s.e. | p | Exp(B) | s.e. | p | Exp(B) | s.e. | p |
| **Gender** |  |  |  |  |  |  |  |  |  |
| Male | 0,710 | 0,033 | \*\*\* | 0,658 | 0,143 | \*\* | 0,798 | 0,139 | ns |
| **Age** |  |  |  |  |  |  |  |  |  |
| 40-59y | 1,511 | 0,033 | \*\*\* | 0,767 | 0,138 | (\*) | 1,264 | 0,132 | (\*) |
| 60y+ | 1,505 | 0,032 | \*\*\* | 0,541 | 0,143 | \*\*\* | 1,271 | 0,134 | (\*) |
|  |  |  |  |  |  |  |  |  |  |
| **Gender\*Age** |  |  |  |  |  |  |  |  |  |
| Male\*40-59y | 1,096 | 0,047 | \* | 1,680 | 0,198 | \*\* | 1,280 | 0,190 | ns |
| Male\*60y+ | 1,909 | 0,047 | \*\*\* | 2,275 | 0,206 | \*\*\* | 2,212 | 0,191 | \*\*\* |
|  |  |  |  |  |  |  |  |  |  |
| **Nationality** |  |  |  |  |  |  |  |  |  |
| Non-Belgian | 0,457 | 0,034 | \*\*\* | 0,462 | 0,174 | \*\*\* | 0,750 | 0,151 | (\*) |
|  |  |  |  |  |  |  |  |  |  |
| **Urban** |  |  |  |  |  |  |  |  |  |
| Other centre cities | 1,159 | 0,022 | \*\*\* | 1,181 | 0,171 | ns | 1,318 | 0,160 | (\*) |
| Suburbs or outskirts of a city | / |  |  | 1,065 | 0,165 | ns | 1,363 | 0,154 | \* |
| Small city or town | / |  |  | 1,204 | 0,158 | ns | 1,280 | 0,149 | (\*) |
| Transition area | / |  |  | 1,069 | 0,155 | ns | 1,646 | 0,142 | \*\*\* |
| Countryside | / |  |  | 1,096 | 0,165 | ns | 1,231 | 0,155 | ns |
|  |  |  |  |  |  |  |  |  |  |
| **Intercept** | 0,518 | 0,029 | \*\*\* | 0,836 | 0,157 | ns | 0,374 | 0,146 | \*\*\* |
| Nagelkerke R² | 0,059 | | | 0,024 | | | 0,043 | | |
| N | 48079 | | | 2500 | | | 3000 | | |
|  |  |  |  |  |  |  |  |  |  |
| Odds of response without predictor variables | 0,661 | 0,009 | \*\*\* | 0,666 | 0,041 | \*\*\* | 0,613 | 0,038 | \*\*\* |
|  |  |  |  |  |  |  |  |  |  |
| (\*) p < 0,10; \* p < 0,05; \*\* p < 0,01; \*\*\* p < 0,001; ns: non significant (p > 0,10) | | | | |  |  |  |  |  |
| City monitor 18y+ |  |  |  |  |  |  |  |  |  |

Table 4. Impact of number of different mailings on response using web or postal mode

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **City monitor** | | |  |  |
| Mode | > M1 - letter with URL link and unique code + paper questionnaire // M2 - thank you/reminder card | > M3 - letter with URL link and unique code + paper questionnaire // M4 - thank you/reminder card \_ only to those respondents who did not react to first two mailings | Total after all mailings |  |  |
| Web | 23,3% | 22,7% | 22,7% |  |  |
| Postal | 76,7% | 78,5% | 77,3% |  |  |
| N | 12845 | 6288 | 19133 |  |  |
|  | 67,1% | 32,9% | 100,0% |  |  |
|  |  |  |  |  |  |
|  | **ISSP Flanders-Belgium** | | | | |
|  | > M1 - letter with URL link, username and password / possibility to ask for a paper questionnaire | > M2 - 1st letter to remind with URL link, username and password only to those respondents who did not react to first mailing / possibility to ask for a paper questionnaire | > M3 - 2nd letter to remind with URL link , username and password + paper questionnaire and return envelope free of charge only to those respondents who did not react to first two mailings | > M4 - 3th letter to remind with URL link, username and password only to those respondents who did not react to first three mailings / possibility to ask for a paper questionnaire | Total after all mailings |
| Web | 100,0% | 92,5% | 19,1% | 56,6% | 68,0% |
| Postal | 0,0% | 7,5% | 80,9% | 43,4% | 32,0% |
| N | 311 | 295 | 340 | 53 | 999 |
|  | 31,1% | 29,5% | 34,0% | 5,3% | 100,0% |
|  |  |  |  |  |  |
|  | **Satisfaction barometer** | | | | |
| Web | 100,0% | 99,7% | 15,9% | 41,3% | 57,0% |
| Postal | 0,0% | 0,3% | 84,1% | 58,7% | 43,0% |
| N | 201 | 326 | 509 | 104 | 1140 |
|  | 17,6% | 28,6% | 44,6% | 9,1% | 100,0% |

Table 5. Impact of number of mailings on the profile of respondents

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **ISSP Flanders-Belgium** | | | | **Satisfaction barometer** | | | |
|  | Δ % mailing 1+2 - population |  | Δ % all mailings - population |  | Δ % mailing 1+2 - population |  | Δ % all mailings - population |  |
| **Gender\*Age** |  |  |  |  |  |  |  |  |
| Woman 18-39y | 4,6 | \* | 3,2 | \* | 0,8 |  | -1,9 |  |
| Woman 40-59y | 1,9 |  | 0,5 |  | 1,0 |  | 0,1 |  |
| Woman 60y+ | -8,0 | \* | -3,1 | \* | -5,9 | \* | -0,7 |  |
| Man 18-39y | 0,1 |  | -2,0 |  | -3,8 | \* | -5,0 | \* |
| Man 40-59y | 2,5 |  | 0,7 |  | 2,9 |  | -0,4 |  |
| Man 60y+ | -1,0 |  | 0,7 |  | 5,1 | \* | 7,8 | \* |
|  |  |  |  |  |  |  |  |  |
| **Nationality** |  |  |  |  |  |  |  |  |
| Belgian | 2,9 |  | 2,8 |  | 0,6 |  | 1,8 |  |
| Non-Belgian | -2,9 | \* | -2,8 | \* | -0,6 |  | -1,8 | \* |
|  |  |  |  |  |  |  |  |  |
| **Urban** |  |  |  |  |  |  |  |  |
| Antwerp+Gent | -1,9 |  | -1,9 |  | -0,7 |  | -2,5 | \* |
| Other centre cities | -0,3 |  | 0,5 |  | -1,6 |  | -0,6 |  |
| Suburbs or outskirts of a city | 0,2 |  | 0,5 |  | -0,7 |  | 1,1 |  |
| Small city or town | 1,7 |  | 1,6 |  | 2,3 |  | -1,3 |  |
| Transition area | 0,1 |  | -1,3 |  | 4,0 |  | 3,8 | \* |
| Countryside | 0,1 |  | 0,6 |  | -3,4 |  | -0,6 |  |
|  |  |  |  |  |  |  |  |  |
| **Degree** |  |  |  |  |  |  |  |  |
| Max. lower secondary | -12,8 | \* | -7,0 | \* | -9,7 | \* | 0,5 |  |
| Max. higher secondary | -1,8 |  | -2,2 |  | -8,6 | \* | -8,0 | \* |
| Higher education | 14,7 | \* | 9,3 | \* | 18,2 | \* | 7,5 | \* |
|  |  |  |  |  |  |  |  |  |
| **Paid work** |  |  |  |  |  |  |  |  |
| No | 12,3 | \* | 6,4 | \* | -0,8 |  | 5,0 | \* |
| Yes | -12,3 | \* | -6,4 | \* | 0,8 |  | -5,0 | \* |
|  |  |  |  |  |  |  |  |  |
| Source: Statistics Belgium - Population 2015, 2016; Labor Force Survey 2015, 2016 | | | |  |  |  |  |  |
| \* Standardized residual ≥ 2 or ≤ -2 | |  |  |  |  |  |  |  |

Table 6. Multivariate analysis of respondents using web or postal mode

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **City monitor** | | | **ISSP Flanders-Belgium** | | | **Satisfaction barometer** | | |
|  | Exp(B) | s.e. | p | Exp(B) | s.e. | p | Exp(B) | s.e. | p |
| **Gender** |  |  |  |  |  |  |  |  |  |
| Man | 0,576 | 0,060 | \*\*\* | 0,475 | 0,295 | \* | 0,778 | 0,285 | ns |
| **Age** |  |  |  |  |  |  |  |  |  |
| 40-59y | 1,603 | 0,060 | \*\*\* | 1,001 | 0,246 | ns | 1,679 | 0,246 | \* |
| 60y+ | 3,597 | 0,082 | \*\*\* | 3,529 | 0,278 | \*\*\* | 3,059 | 0,273 | \*\*\* |
| **Gender\*Age** |  |  |  |  |  |  |  |  |  |
| Man\*40-59y | 1,007 | 0,084 | ns | 1,844 | 0,383 | ns | 0,623 | 0,365 | ns |
| Man\*60y+ | 0,919 | 0,101 | ns | 0,899 | 0,386 | ns | 1,013 | 0,355 | ns |
| **Nationality** |  |  |  |  |  |  |  |  |  |
| Non-Belgian | 0,872 | 0,073 | (\*) | 1,005 | 0,346 | ns | 0,626 | 0,303 | ns |
| **Urban** |  |  |  |  |  |  |  |  |  |
| Other centre cities | 1,118 | 0,044 | \* | 1,655 | 0,312 | ns | 1,569 | 0,301 | ns |
| Suburbs or outskirts of a city | / |  |  | 1,330 | 0,306 | ns | 1,530 | 0,289 | ns |
| Small city or town | / |  |  | 1,240 | 0,291 | ns | 1,110 | 0,283 | ns |
| Transition area | / |  |  | 1,200 | 0,288 | ns | 1,085 | 0,269 | ns |
| Countryside | / |  |  | 1,339 | 0,305 | ns | 1,960 | 0,289 | \* |
| **Degree** |  |  |  |  |  |  |  |  |  |
| Max. higher secondary | 0,597 | 0,053 | \*\*\* | 0,512 | 0,191 | \*\*\* | 0,579 | 0,169 | \*\*\* |
| Higher education | 0,412 | 0,051 | \*\*\* | 0,376 | 0,197 | \*\*\* | 0,234 | 0,174 | \*\*\* |
| **Paid work** |  |  |  |  |  |  |  |  |  |
| Yes | 0,856 | 0,048 | \*\*\* | 0,747 | 0,194 | ns | 1,021 | 0,183 | ns |
|  |  |  |  |  |  |  |  |  |  |
| **Intercept** | 4,162 | 0,073 | \*\*\* | 0,669 | 0,341 | ns | 0,731 | 0,325 | ns |
| Nagelkerke R² | 0,135 | | | 0,188 | | | 0,217 | | |
| N | 17483 | | | 989 | | | 1086 | | |
| % missing cases | 8,6 | | | 1,0 | | | 4,7 | | |
|  |  |  |  |  |  |  |  |  |  |
| (\*) p < 0,10; \* p < 0,05; \*\* p < 0,01; \*\*\* p < 0,001; ns: non significant (p > 0,10) | | | | |  |  |  |  |  |
| City monitor 18y+ |  |  |  |  |  |  |  |  |  |

1. [ann.carton@kb.vlaanderen.be](mailto:ann.carton@kb.vlaanderen.be) for further information.

   If possible additional results of the City monitor (2017) and Municipality monitor (2017) will be presented during the workshop. [↑](#footnote-ref-1)
2. 39,8% for 18 years and older. In all three surveys response rates were calculated as: N validated interviews / N gross sample. [↑](#footnote-ref-2)
3. The ISSP Module Citizenship was fielded together with the ISSP Module Work Orientation. For the latter the response rate dropped to 38,5%, as some respondents did not complete the work orientation module. [↑](#footnote-ref-3)
4. As in the City monitor districts in some cities were oversampled, we limit the evaluation of the representativeness question to the other two surveys. [↑](#footnote-ref-4)