

# The Labour Force Survey, a Mixed Mode Household Survey

*Martha Kevers, April 2012, Design Department, Data Collection Division, Statistics Netherlands*

## 1 Introduction

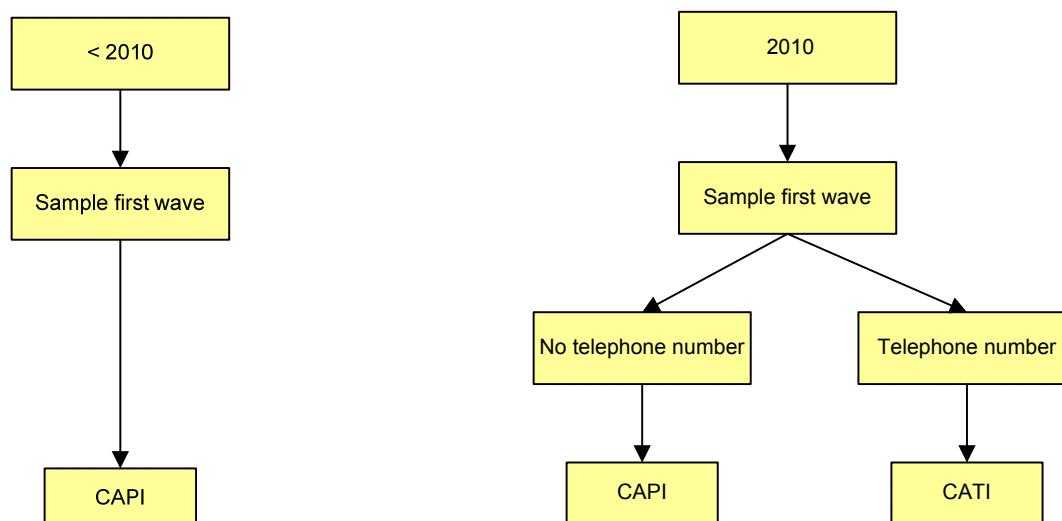
In the last few years, Statistics Netherlands has put a lot of effort in introducing web and mixed-mode data collection strategies for the social LFS household survey (*Janssen 2010. 'Web data collection for Household Surveys at Statistics Netherlands'*). Major drivers for these efforts are the rapid development of the Internet as a survey mode and the decreasing availability of telephone numbers. Also, there is a strong incentive to reduce the costs of data collection at Statistics Netherlands. In addition to this, users require more flexibility in implementing new surveys and also timeliness and coherence of statistics are important issues. To react to these developments, Statistics Netherlands initiated a programme to redesign its social surveys. The programme's main objectives relate to efficiency, quality and flexibility. These goals are met by implementing several changes in the design of the social surveys (*Cuppen, M., P. van der Laan, W. van Nunspeet 2011. 'Re-engineering Dutch social surveys: From single-purpose surveys to an integrated design'*).

One of the key elements of the new model for surveys developed in this programme is the introduction of a sequential mixed-mode data collection strategy for all social surveys. In this strategy multiple contact attempts are implemented using different modes in a prespecified order. Sequential mixed-mode strategies are particularly cost effective since they can start with the self-administered modes that have low administration costs and use interviewer-administered modes to re-approach the remaining nonrespondents. At Statistics Netherlands, in a sequential mixed-mode strategy respondents are first contacted with an advance letter inviting them to fill in a questionnaire on the Internet. For some surveys, respondents are offered the possibility to request a paper questionnaire. If respondents do not respond by using the Internet or paper questionnaire, they are either approached by telephone when a telephone number is available or else approached for a face-to-face interview. Approximately 2/3 of the respondents who did not respond by internet are approached by telephone. The remaining respondents will be approached face-to-face.

For the Labour Force Survey the introduction of the sequential mixed-mode design consisted of two steps, because in order to introduce a web questionnaire for the Labour Force Survey a number of issues had to be solved. For instance, while only one person per household is interviewed for the Health Survey, the Labour Force Survey is a household survey in which all household members (of 15 years of age or older) are to be interviewed. Interviewing large households with a web questionnaire or even by telephone raises a number of practical issues: the interview should not get too lengthy and (in cawi) it is difficult to ensure that every household member fills out the questionnaire, which could result in partial nonresponse. Also, the Dutch Labour Force Survey questionnaire has automatic coding modules integrated for educational attainment, economic activity and occupation. These modules are complex and have to be operated by interviewers who have been trained to do so. Respondents cannot be expected to classify themselves with these modules without the help of a trained and experienced interviewer. So, these modules needed to be simplified and adjusted to be available for self-administered questionnaires, which is not a trivial task and which might result in less detailed information.

Therefore, in 2010 a mixed-mode design was introduced in the first wave of the LFS using only capi and cati datacollection. Addresses with a listed telephone number were from then on contacted by telephone instead of face-to-face. In the old design, all households were contacted face-to-face for the first wave of the LFS. The introduction of cati in the first wave of the Labour Force Survey provided useful information on interviewing households by other modes than capi. Main conclusions so far are that attention should be paid to interview durations of households consisting of more than three people of 15 years of age or older. In addition, households with a known mobile phone number turned out to

be hard to reach when approached by telephone, mainly because of a relatively high number of invalid or otherwise unusable phone numbers. Therefore these households are now approached by capi instead of cati.



The cawi mode is introduced in the LFS in 2012. The new design is run in parallel to the current design for six months to be able to compare both designs and measure discontinuities directly. Before introducing the cawi mode into the Labour Force Survey design, a pilot was conducted in 2011 to provide input on how to introduce cawi in the LFS. This paper describes the goals and design of this pilot, as well as the results of the pilot and the conclusions that were subsequently incorporated in the design of the mixed-mode LFS in 2012.

## 2 Pilot design

The main objectives of this pilot are:

- finding out which response rates can be expected from the first and second wave of the LFS;
- finding out which response rates can be expected for specific sections of the population, especially response rates for different household sizes and for households including one or more people defined as ethnic minorities from non-western countries;
- finding out to what extent the number of partial responses (incomplete households) changes by introducing web data collection;
- finding out to what extent the number of proxy reports changes by introducing web data collection.

Sample units are approached largely in accordance with the customary approach strategy used for mixed-mode surveys involving individuals and households. The strategy for the first wave is composed of the following steps.

1. All sample units receive a letter containing the Internet address where the web questionnaire can be found and a personal login to gain access to the web questionnaire. In the letter a household residing in the address the letter was sent to, is requested to complete the questionnaire through the Internet. All household members have to use the same login to gain access to the questionnaire. Household members do not receive an individual login. The letter is sent on Thursday to ensure sample units receive it just before the weekend.
2. Reminders are sent to sample units that have not yet filled in the questionnaire. They are sent one week and two weeks after the advance letter. Again both letters are sent on Thursday.
3. One week after the second reminder the web questionnaire is closed. Nonrespondents to the web questionnaire are now approached by telephone or face-to-face. This approach is not preceded by a specific advance letter. Though, in the letters from steps 1 and 2 there is a notification that if a household does not participate in the survey via the Internet they will be requested to participate

in a telephone or face-to-face interview. In the pilot a slightly different strategy than the customary strategy is chosen. Only households for which a landline telephone number is available and households consisting of no more than two people of 15 years of age or older are approached by telephone. This means that households for which no telephone number or only a mobile phone number is available and households consisting of three people or more of 15 years of age or older are approached face-to-face.

4. At the end of the questionnaire of the first wave respondents are asked if they are willing to participate in the second wave of the LFS. Respondents that are willing to do so are asked for their telephone number.

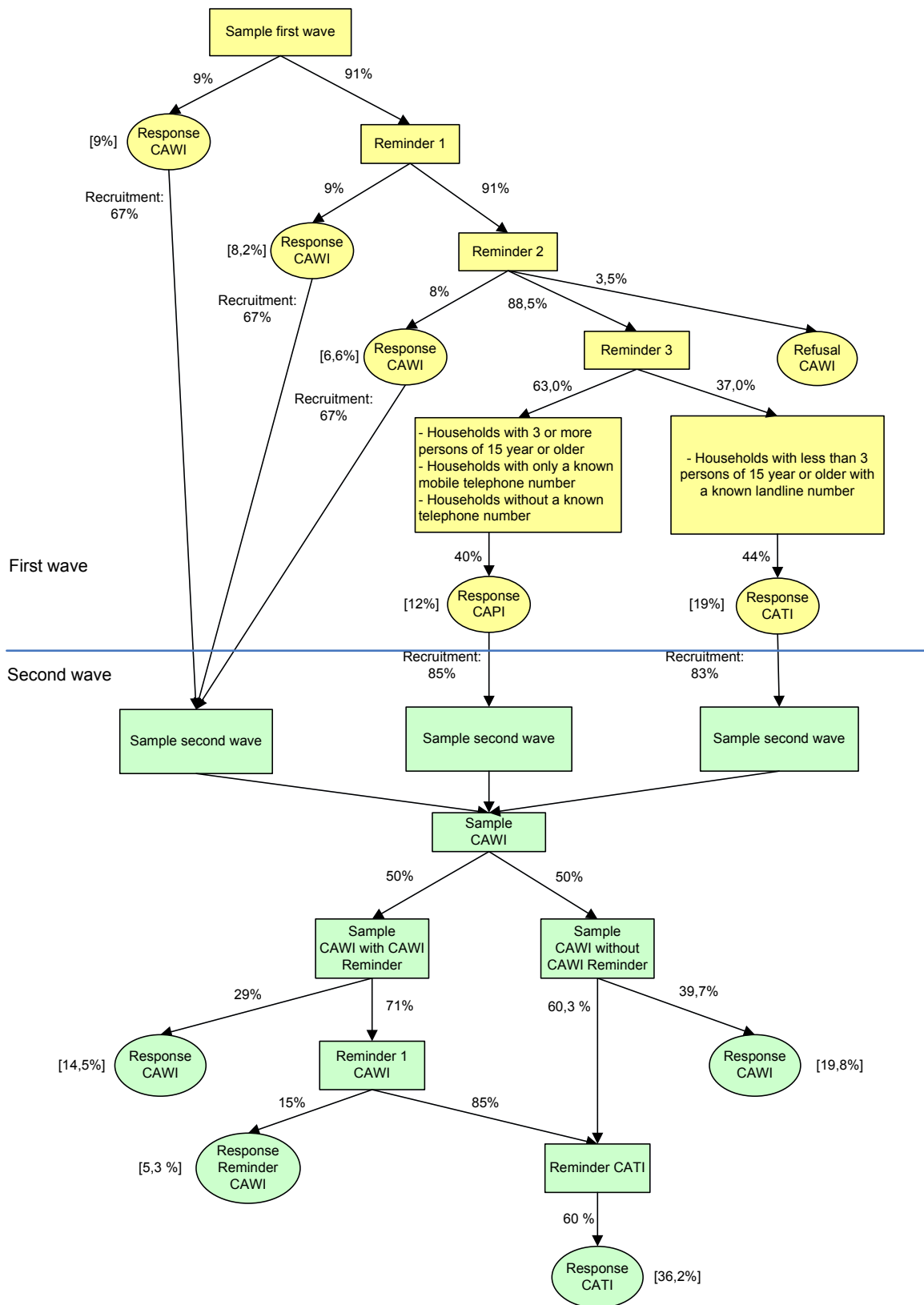
The strategy for the second wave is composed of the following steps.

1. All respondents of the first wave, regardless in which mode they participated, who have agreed to participate in the second wave, are approached by letter requesting them to complete the questionnaire of the second wave via the web. Again this letter is sent on a Thursday taking into account that respondents are approached close to three months after responding in the first wave.
2. One week after the first letter only half of the sample units that have not yet filled in the questionnaire receive a letter reminding them to do so. The other half of the nonrespondents is not reminded. This letter is also sent on a Thursday. Sample units only get the following weekend to fill in the questionnaire via the web.
3. The following Monday the web questionnaire is closed. Nonrespondents to the web questionnaire are then approached by telephone if a telephone number is available. This approach is not preceded by a specific advance letter. Though, in the letters from steps 1 and 2 there is a notification that if a household does not participate in the survey via the Internet they will be requested to participate in a telephone interview

The reason for requesting all respondents of the first wave to fill in a web questionnaire is to determine the effect of this mode change on the response rate of the respondents by telephone or face-to-face of the first wave. The reason for sending the reminder to only half of the sample units is to find out what effect is to be expected from sending the reminder close to the data collection period by telephone.

The sample size of the pilot was 4.000. An estimated 24 percent of the sample units are expected to respond via the web. The data collection by telephone and face-to-face is expected to add an estimated 31 percent as a result of which the total response rate is expected to add up to 55 percent for the first wave. For comparison, the response rate for the first wave of the regular LFS from January to March 2011 was 54 percent. The expected response rate of the second wave is not determined in advance.

# Approach strategy LFS-pilot including response rates

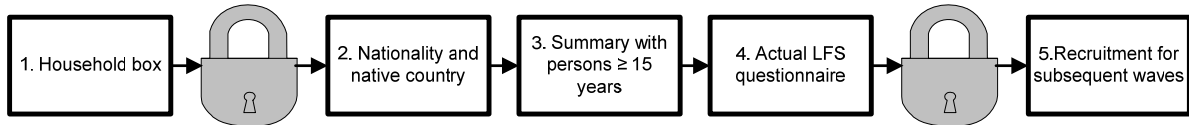


(1) The response rates indicated between square brackets are a percentage of the initial sample. The response rates not indicated between square brackets are percentages of the subportion.

### 3 Approach development questionnaire LFS

After the design has been established and approved by the customer, it is up to the developer to translate the design into a questionnaire and to specify the questions, routings, controls, etc.

The LFS questionnaire consists mainly of 5 chapters in following sequence:



#### 3.1 Householdbox

The samples for the LFS are based on address data. These do not contain details about the inhabitants of a specific address but only about the address itself and a telephone number.

To collect information about the composition of the household and background information (gender, age, marital status) on the individual members, we use the so called 'householdbox'. One person completes the householdbox with the details for each occupant on the selected address, with a maximum of 8 persons.

The householdbox starts with a question on the size of the household. This information is used as input for a question with a limited range of answer-options to determine the household compositions (e.g., a household sized two can never be a household with a couple and children). When the composition is established, background information will be asked first for the couple / parent, second for their children and last for the other members of the household. The other members of the household are also asked what their relationship (e.g., mother, sibling or aunt/uncle) is to the eldest person of the couple or the parent in the household.

After the information in the householdbox is completed for all the persons (up to 8) living at the selected address, a summary appears with the details for all the inhabitants. The respondent has still the opportunity to adjust the information if necessary. If the respondent agrees with the data of the summary, he/she can check the mark in the box 'Data correct' and proceeds with the questionnaire.

**We hebben nu van uw huishouden de volgende gegevens:**

man, 49 jaar oud (11-11-1962), gehuwd / geregistreerd partnerschap, echtgenoot / partner  
vrouw, 48 jaar oud (26-4-1963), gehuwd / geregistreerd partnerschap, echtgenote / partner  
man, 18 jaar oud (9-6-1993), nooit gehuwd geweest, kind  
vrouw, 16 jaar oud (22-2-1996), nooit gehuwd geweest, kind  
man, 15 jaar oud (14-11-1996), nooit gehuwd geweest, kind  
jongen, 14 jaar oud (2-2-1998), nooit gehuwd geweest, kind  
jongen, 12 jaar oud (13-4-1999), nooit gehuwd geweest, kind  
jongen, 10 jaar oud (14-12-2001), nooit gehuwd geweest, kind

**Kloppen bovenstaande gegevens?**  
Zo niet, ga met behulp van de knop 'vorige' onderaan in het scherm terug in de vragenlijst om wijzigingen aan te brengen.

Gegevens correct

After the householdbox has been confirmed it is not possible anymore to make adjustments. The data is fixed and lays the foundation for the continuation of the questionnaire, such as routing.

#### 3.2 Nationality and native country

The next question is about whom will answer the remaining questions of the householdbox for the members of the household.

**Wie beantwoordt de vragen voor het huishouden?**

- man, 49 jaar oud (11-11-1962), gehuwd / geregistreerd partnerschap
- vrouw, 48 jaar oud (26-4-1963), gehuwd / geregistreerd partnerschap
- man, 18 jaar oud (9-6-1993), nooit gehuwd geweest
- vrouw, 16 jaar oud (22-2-1996), nooit gehuwd geweest
- man, 15 jaar oud (14-11-1996), nooit gehuwd geweest
- jongen, 14 jaar oud (2-2-1998), nooit gehuwd geweest
- jongen, 12 jaar oud (13-4-1999), nooit gehuwd geweest
- jongen, 10 jaar oud (14-12-2001), nooit gehuwd geweest

Subsequently some questions follow about the nationality and the native country of the household members and the parents of the core of the household (in general the parents of the partners in the household).

### 3.3 Summary with persons of 15 years and older

After the householdbox has been completed, the respondent needs to enter the names of all the persons of 15 years and older in string fields. Only the persons with an age of 15 years and older appear in the summary.

In case the household contains only one person or only one person of 15 years and older, the summary will be skipped and the respondent arrives directly into the actual LFS questionnaire.

Er volgt nu voor iedere persoon in uw huishouden ouder dan 14 jaar een aantal vragen. Om duidelijk aan te kunnen geven voor wie welke vragen bestemd zijn, willen we u vragen om voor onderstaande personen een voor u herkenbare naam (of omschrijving) op te geven.

Persoon	Naam
1. Man, 49 jaar oud (11-11-1962)	John
2. Vrouw, 48 jaar oud (26-4-1963)	Anna
3. Man, 18 jaar oud (9-6-1993)	Peter
4. Vrouw, 16 jaar oud (22-2-1996)	Sophie
5. Man, 15 jaar oud (14-11-1996)	Nick

After the names have been confirmed the next screen gives the opportunity to complete for each person their part of the LFS questionnaire.

Er volgt nu voor iedere persoon in uw huishouden ouder dan 14 jaar een aantal vragen. Deze vragen kunnen door de betreffende persoon zelf worden ingevuld, maar mogen ook door iemand anders in het huishouden (ouder dan 14 jaar) ingevuld worden. Als voor alle personen de vragen zijn beantwoord, kunt u de vragenlijst terugsturen. Als u met de vragenlijst begonnen bent kunt u met de knop "overzicht" onderaan het scherm altijd weer terugkeren naar deze pagina. De antwoorden die u al heeft gegeven worden dan opgeslagen.

Start de vragenlijst voor de betreffende persoon door op de knop "Invullen" te klikken die achter de gegevens van die persoon staat.

1. John: Man, 49 jaar oud (11-11-1962)	<input type="button" value="Invullen"/>
2. Anna: Vrouw, 48 jaar oud (26-4-1963)	<input type="button" value="Invullen"/>
3. Peter: Man, 18 jaar oud (9-6-1993)	<input type="button" value="Invullen"/>
4. Sophie: Vrouw, 16 jaar oud (22-2-1996)	<input type="button" value="Invullen"/>
5. Nick: Man, 15 jaar oud (14-11-1996)	<input type="button" value="Invullen"/>

One of the requirements for this screen is that the respondents do not need to fill in the questionnaire in sequence of the names as shown on the screen. The respondent(s) need(s) to have the flexibility to choose their questionnaire despite in which order they appear in the summary.

Another requirement is that a respondent does not need to complete his/her questionnaire before another member of the household can start with his/her questionnaire. They are able to interrupt their questionnaire and another person can continue with his/her part.

This example shows that person 2 (Anna) and person 4 (Nick) have partly completed their questionnaire (status = busy). Other members of the household have the opportunity to complete their questionnaires, or Anna or Nick is able to continue or to finish their questionnaires. The status of the questionnaire appears behind the line(s) with the names.

Er volgt nu voor iedere persoon in uw huishouden ouder dan 14 jaar een aantal vragen. Deze vragen kunnen door de betreffende persoon zelf worden ingevuld, maar mogen ook door iemand anders in het huishouden (ouder dan 14 jaar) ingevuld worden. Als voor alle personen de vragen zijn beantwoord, kunt u de vragenlijst terugsturen. Als u met de vragenlijst begonnen bent kunt u met de knop "overzicht" onderaan het scherm altijd weer terugkeren naar deze pagina. De antwoorden die u al heeft gegeven worden dan opgeslagen.

Start de vragenlijst voor de betreffende persoon door op de knop "Invullen" te klikken die achter de gegevens van die persoon staat.

1. John: Man, 49 jaar oud (11-11-1962)	Invullen	
2. Anna: Vrouw, 48 jaar oud (26-4-1963)	Invullen	Bezig met invullen
3. Peter: Man, 18 jaar oud (9-6-1993)	Invullen	
4. Sophie: Vrouw, 16 jaar oud (22-2-1996)	Invullen	Bezig met invullen
5. Ilick: Man, 15 jaar oud (14-11-1996)	Invullen	

After the questionnaire for a particular member of the household has been completed and approved, the button to complete the questionnaire disappears and the status is updated. This means that the questionnaire for that particular person cannot be updated anymore.

Er volgt nu voor iedere persoon in uw huishouden ouder dan 14 jaar een aantal vragen. Deze vragen kunnen door de betreffende persoon zelf worden ingevuld, maar mogen ook door iemand anders in het huishouden (ouder dan 14 jaar) ingevuld worden. Als voor alle personen de vragen zijn beantwoord, kunt u de vragenlijst terugsturen. Als u met de vragenlijst begonnen bent kunt u met de knop "overzicht" onderaan het scherm altijd weer terugkeren naar deze pagina. De antwoorden die u al heeft gegeven worden dan opgeslagen.

Start de vragenlijst voor de betreffende persoon door op de knop "Invullen" te klikken die achter de gegevens van die persoon staat.

1. John: Man, 49 jaar oud (11-11-1962)	Invullen	
2. Anna: Vrouw, 48 jaar oud (26-4-1963)	Invullen	Bezig met invullen
3. Peter: Man, 18 jaar oud (9-6-1993)	Invullen	
4. Sophie: Vrouw, 16 jaar oud (22-2-1996)		Invullen voltooid
5. Ilick: Man, 15 jaar oud (14-11-1996)	Invullen	

The first question after activating the button "Fill" concerns the proxy report. Three options are given: the respondent completes the questionnaire him- or herself, another person in the household can fill in the questionnaire or no one will answer the questions.

In case the respondent will answer the questions him- or herself, the questionnaire continues with the questions of the actual LFS survey.

Wie beantwoordt de vragen voor Anna?

- Anna zelf
- Iemand anders in het huishouden
- Niemand wil de vragen beantwoorden

If someone else will answer the questions and the household consists of more than 2 people aged 15 years or older, a next question appears who in the household will complete the LFS survey for this person. As answer options, all the names of the other household members aged 15 years or older are presented.

Wie beantwoordt de vragen voor Anna?

- Anna zelf
- Iemand anders in het huishouden
- Niemand wil de vragen beantwoorden

Wie beantwoordt de vragen voor Anna?

- John
- Peter
- Sophie
- Nick

In case nobody will answer the questions for the selected person, a warning is presented. If the respondent is sure no one will answer the questions, he/she will return to the screen with the summary of the persons in the household of 15 years and older.

In that case it concerns partial response (Code 31, whereas complete response is code 30). The recruitment block will be skipped in the survey and the respondent(s) will not be approached for subsequent waves.

Wie beantwoordt de vragen voor Anna?

- Anna zelf
- Iemand anders in het huishouden
- Niemand wil de vragen beantwoorden

Weet u zeker dat niemand de vragen wil beantwoorden?  
Zo ja, klik dan op knop "Akkoord" om het invullen te voltooien.

### 3.4 Actual LFS questionnaire

The first wave of the LFS questionnaire includes mainly blocks about economic activity, occupation and educational attainment, followed by some additional questions among others about health and religion.

After the questionnaire for a particular member of the household has been completed and approved, the data is fixed and cannot be updated anymore.

### 3.5 Recruitment for subsequent waves

Only after the LFS questionnaires for all the persons involved have been completed, it is possible to continue to the recruitment block. In this block Statistics Netherlands asks the respondent for permission to approach the household for the next subsequent waves.

When this block has been completed, the respondent is able to send the LFS survey to Statistics Netherlands.



### **3.6 Points of interest to develop the LFS questionnaire**

Before a correct and complete design of the LFS survey could be handed over to program the questionnaire according to the specifications in Blaise, there were some challenges that first had to be tackled.

#### **3.6.1 Flexible summary with persons of 15 years and older**

For instance there was the dilemma about the requirement that the respondents do not need to fill in the questionnaire in sequence. This issue was solved in the “Summary with persons of 15 years and older” (See chapter 3.3)

#### **3.6.2 Freeze data of the householdbox and the actual LFS questionnaire**

In the questionnaire routes are based on data collected in the householdbox. If a considerable part of the survey has been filled in and information of the householdbox will be changed afterwards, the routing in the questionnaire can become corrupt. To avoid this situation, it was decided to freeze the information inserted in the householdbox, (See chapter 3.1, Householdbox).

After the actual LFS questionnaire has been completed for a specific person, it is not possible to update this part anymore.

#### **3.6.3 Navigation**

In case the respondent interrupts the questionnaire and returns again afterwards, he/she needs to scroll through the survey to arrive at the next question to reply. It is not possible to navigate through the questionnaire to the last or first question as the respondent will arrive in the summary with the names of the persons of 15 years and older. This is the first question to reply in case the actual questionnaires per person are not completed yet.

#### **3.6.4 Control on respondent(s) of 15 years and older**

Only persons in the household of 15 years and older are allowed to fill in the LFS survey. However, as the CAWI LFS survey is a self-administered mode there is less possibility to check if this is actually the case compared to interviewer-administered modes (CATI/CAPI).

#### **3.6.5 Text imputations**

Depending on the person who fills in the questionnaire, the imputation “he, she or you” needs to appear. This effort was rather time consuming to make sure it was on the right places in the design.

### **3.7 Lessons learned**

From the helpdesk we received some calls from respondents about the font. For some respondents the LFS CAWI-mode is difficult to read. Besides, at the beginning from the character “W” a part does not appear on the screen. Within Statistics Netherlands a decision needs to be made which font is most appropriate to use in CAWI modes.

## **4 Approach programming questionnaire LFS**

After the questionnaire has been developed, the Blaise programmers use the specifications of the design to program the questionnaire.

Obviously also here were some challenges to be able to execute the requirements of the design of the LFS questionnaire.

## 4.1 Points of interest to program the LFS questionnaire

### 4.1.1 Freeze details in the householdbox and the actual LFS questionnaire

Among others there was the requirement to freeze the details of the household box after it was completed for all the members of the household. This should make it impossible for the respondent to return into the householdbox afterwards.

After the details have been entered in the householdbox the respondent needs to confirm that the information completed is correct. Subsequently the respondent arrives in the next screen.



Voor het volgende deel van de vragenlijst is het belangrijk dat de persoonsgegevens niet meer gewijzigd worden. Als u geen wijzigingen in de vorige vragen meer wilt aanbrengen toets dan op akkoord om verder te gaan.

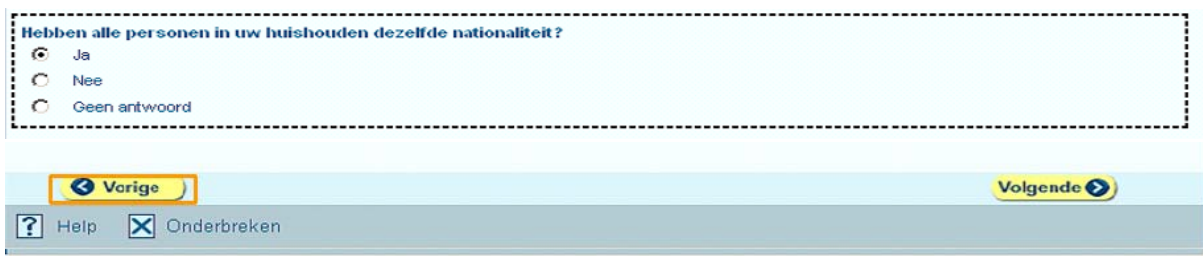
Akkoord

← Vorige

Volgende →

? Help X Onderbreken

If the respondent selects the button “Previous”, he/she cannot return anymore to the householdbox but arrives in the information screen. The details in the householdbox cannot be updated anymore.



Hebben alle personen in uw huishouden dezelfde nationaliteit?

Ja

Nee

Geen antwoord

← Vorige

Volgende →

? Help X Onderbreken

## Welkom bij de enquête

### Invullen vragenlijst

Met de knop **Help** onderaan het scherm krijgt u extra informatie over het werken met deze online vragenlijst.

### Bladeren

De vragenlijst bestaat uit een aantal schermen; blader zo nodig via de knoppen  en .

### Extra toelichting

Indien aanwezig verschijnt via de knop  extra toelichting bij de vraag.


### Vraag niet van toepassing

Is een vraag voor u niet van toepassing, laat deze dan leeg indien deze niet verplicht is. U krijgt automatisch een melding als u per ongeluk een verplichte vraag leeg laat.

### Onderbreken

U kunt het invullen halverwege onderbreken met de knop die u in de menubalk onderaan het scherm vindt. Bij het onderbreken worden de al ingevulde antwoorden automatisch opgeslagen zodat u later weer verder kunt gaan met invullen.

### Verzenden van de vragenlijst

Klaar? Verzend door klikken op knop  (verschijnt rechts onderaan in beeld). Aansluitend kunt u de ontvangstbevestiging afdrukken voor uw administratie.

Stuur uw ingevulde vragenlijst vóór de retourdatum (indien van toepassing) terug naar het CBS.

### Privacy

U kunt er bij onderzoeken van het CBS zeker van zijn dat uw privacy is gewaarborgd. Het is wettelijk vastgelegd dat de gegevens die het CBS verzamelt, alleen voor statistische doeleinden worden gebruikt. Geen enkele instelling kan toegang opeisen tot de gegevens die het CBS verzamelt. Bovendien zijn nooit persoonlijke gegevens te herkennen of af te leiden in de statistische informatie die het CBS naar buiten brengt.

### Vragen

Bij vragen kunt u contact opnemen met het CBS Contact Center:

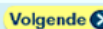
Telefoon (op werkdagen):

- (045) 570 64 00 voor inhoudelijke vragen (tussen 9-17 uur)

- (045) 570 66 27 voor technische vragen (tussen 10-12 en 14-16 uur)

E-mail: [contactcenter@cbs.nl](mailto:contactcenter@cbs.nl)

**Alvast bedankt voor uw medewerking!**



 Help  Onderbreken

The same principle applies as well to the actual LFS questionnaire after it has been completed per person.

### 4.1.2 Buttons on command

Under certain conditions buttons need to:

- appear
- disappear
- fade (light grey), button not active
- brighten up (yellow), button active

In the summary of the persons of 15 years and older in the household the button “Next” will only become active after the actual LFS questions for all the persons have been completed. As from that moment the respondents are able to continue in the LFS survey.

The actual LFS questionnaire is not yet completed for all the persons of 15 years and older in the household. The button “Next” is not yet active.

Er volgt nu voor iedere persoon in uw huishouden ouder dan 14 jaar een aantal vragen. Deze vragen kunnen door de betreffende persoon zelf worden ingevuld, maar mogen ook door iemand anders in het huishouden (ouder dan 14 jaar) ingevuld worden. Als voor alle personen de vragen zijn beantwoord, kunt u de vragenlijst terugsturen. Als u met de vragenlijst begonnen bent kunt u met de knop "overzicht" onderaan het scherm altijd weer terugkeren naar deze pagina. De antwoorden die u al heeft gegeven worden dan opgeslagen.

Start de vragenlijst voor de betreffende persoon door op de knop "Invullen" te klikken die achter de gegevens van die persoon staat.

- |   |          |
|---|----------|
| 1. John: Man, 49 jaar oud (11-11-1962)    | Invullen |
| 2. Anna: Vrouw, 48 jaar oud (26-4-1963)   | Invullen |
| 3. Peter: Man, 18 jaar oud (9-6-1993)     | Invullen |
| 4. Sophie: Vrouw, 16 jaar oud (22-2-1996) | Invullen |
| 5. Hick: Man, 15 jaar oud (14-11-1996)    | Invullen |



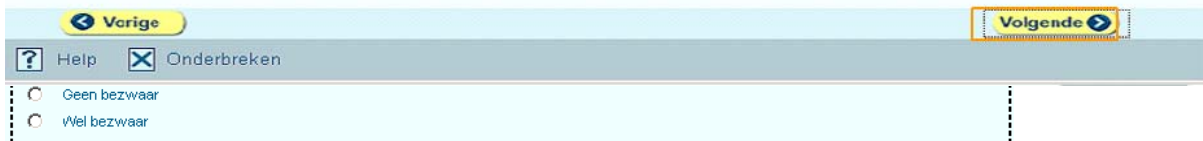
If the actual LFS questionnaire for all the members of the household of 15 years and older has been completed, the button “next” becomes active and the respondent is able to navigate further to the recruitment block.

Er volgt nu voor iedere persoon in uw huishouden ouder dan 14 jaar een aantal vragen. Deze vragen kunnen door de betreffende persoon zelf worden ingevuld, maar mogen ook door iemand anders in het huishouden (ouder dan 14 jaar) ingevuld worden. Als voor alle personen de vragen zijn beantwoord, kunt u de vragenlijst terugsturen. Als u met de vragenlijst begonnen bent kunt u met de knop "overzicht" onderaan het scherm altijd weer terugkeren naar deze pagina. De antwoorden die u al heeft gegeven worden dan opgeslagen.

Start de vragenlijst voor de betreffende persoon door op de knop "Invullen" te klikken die achter de gegevens van die persoon staat.

- |   |                   |
|---|-------------------|
| 1. John: Man, 49 jaar oud (11-11-1962)    | Invullen voltooid |
| 2. Anna: Vrouw, 48 jaar oud (26-4-1963)   | Invullen voltooid |
| 3. Peter: Man, 18 jaar oud (9-6-1993)     | Invullen voltooid |
| 4. Sophie: Vrouw, 16 jaar oud (22-2-1996) | Invullen voltooid |
| 5. Hick: Man, 15 jaar oud (14-11-1996)    | Invullen voltooid |

Het invullen van de persoonsvragenlijsten is voltooid. Klik op de knop "Volgende" om verder te gaan.



Also in other places in the questionnaire certain buttons contain specific commands.

#### 4.1.3 Page Up

On the screen with the proxy question it was decided not to show the button “Previous”. However, the respondent was able to return to the previous screen with the key “Page Up” on the keyboard. This issue is solved in a next version of Bismenu.

#### 4.1.4 Proxy

The cawi question asking which person is going to answer the questions about person X is pre-filled with the answer ‘person X’.

This was due to technical reasons. Because the function of “Page Down” could not be blocked, it was decided to add first the blocks for the (maximum 8) persons of 15 years and older on the route and

then the blocks with the selection of the persons. Therefore it was necessary to pre-fill the question about person X. This issue is solved in the next version of Bismenu.

**Wie beantwoordt de vragen voor John?**

John zelf

Iemand anders in het huishouden

Niemand wil de vragen beantwoorden

#### 4.1.5 Actual LFS questionnaire for maximum 8 persons

Normally, if the same questions are asked to multiple persons in a household, the questionnaire contains a loop.

Due to technical reasons relating to the summary of persons of 15 years and older, the actual LFS questionnaire contains the same questions for each person separately (maximum 8 times). This issue is solved in a next version of Bismenu.

#### 4.1.6 CAWI and CATI/CAPI, different questionnaires

The CAWI and CATI/CAPI surveys are two different questionnaires due to deviation in text, routes, instructions, etc. This means that in case mixed mode is applied in surveys, a separate questionnaire needs to be programmed for CAWI and CATI/CAPI.

## 5 Results

### 5.1 Response and recruitment results

In the first wave of the pilot, a total response rate of 54,1 percent is achieved, which is about the same as in the first wave of the regular LFS from January to March 2011 (Table 1). Almost half of the total responses is obtained by cawi. Households with one or two members of 15 years of age or older have higher response rates than households with three or more members (Table 2). Still, one in five households with more than three members responds through the Internet. Households of a non western origin respond less via the Internet than households of a different origin. This observation also holds for the other modes.

Table 1 Response results first wave

	cawi	cati	capi	Total	cawi	cati	capi	Total
	N				%			
<b>Total households in sample</b>	4.000	984	1.821	4.000	100,0%	100,0%	100,0%	100,0%
<i>of which complete response 1st wave</i>	1064	404	697	2165	26,6%	41,1%	38,3%	54,1%

Source: Statistics Netherlands; Datacollection

Table 2 Response results first wave among large households and ethnic minorities

	cawi			cati			capi		
	N	response	%	N	response	%	N	response	%
<b>Size of household</b>									
1	1.113	279	25,1%	309	104	33,7%	495	164	33,1%
2	1.840	556	30,2%	675	300	44,4%	559	229	41,0%
3	592	133	22,5%	-	-	-	437	175	40,0%
>3	455	96	21,1%	-	-	-	326	125	38,3%
<b>Origin of household</b>									
non western	680	85	12,5%	122	37	30,3%	430	128	29,8%
other	3.320	979	29,5%	862	367	42,6%	1.387	565	40,7%

Source: Statistics Netherlands; Datacollection

At the end of the questionnaire of the first wave respondents were recruited for the following waves. The total recruitment rate for the subsequent waves is 78,5 percent (Table 3), which is about 10 percent points lower than in the regular design. The lower result is due to a lower recruitment rate in cawi. In addition, most cawi respondents refuse to fill in their telephone number. As it would be unethical to telephone these households, they are only approached by cawi in subsequent waves, even though the number may be listed. Note that for cawi the share of recruited households with a listed telephone number is larger than the share of recruited households with a telephone number filled in by respondents.

Table 3 Recruitment results subsequent waves

	cawi	cati	capi	Total	cawi	cati	capi	Total
	N				%			
Complete response 1st wave	1064	404	697	2165	100,0%	100,0%	100,0%	100,0%
<b>Recruit % subsequent waves</b>								
No objection subs. Waves	707	377	615	1699	66,4%	93,3%	88,2%	78,5%
<b>Recruit % with available telephone number</b>								
Recruited and telephone number filled in by respondent	284	377	613	1274	26,7%	93,3%	87,9%	58,8%
Recruited and listed telephone number	564	377	376	1317	53,0%	93,3%	53,9%	60,8%

Source: Statistics Netherlands, Datacollection

The total response rate of the second wave is 69,4 percent (Table 4). The cati response ranges between 75,0 and 78,6 percent, which is considerably lower than in the regular design (typically about 88 percent). In other words, introducing cawi again as a first mode in the second wave seems to reduce cati response.

This is problematic, because the lower cati response is not compensated by a high cawi response. As a result, total response rate is lower.

Total response for households that responded via cati or capi in the first wave is higher in comparison to households that responded via cawi in the first wave. The reason for this is, that a large part (38 percent) of the households that responded via cawi in the first wave, did not respond cawi in the second wave, but did not continue to cati follow-up either, because they did not fill in their telephone number. Cati response among the households that did fill in their telephone number in cawi is actually about the same as cati response among the households that responded capi in the first wave. Cawi response is highest among households that responded via cawi in the first wave.

It should be noted that the low cawi response for households that responded cati in the first wave may partly be attributed to problems with Internet safety certificates, which prohibited respondents from responding through the Internet. Other households did not encounter these problems, because for them fieldwork took place at a different point in time.

Table 4 Response results second wave, specified by mode in first wave

	Second wave					
	cawi	cati	Total	cawi	cati	Total
	N			%		
<b>Total households in sample of 2nd wave</b>	1.694	1.043	1.694	100,0%	100,0%	100,0%
<i>of which complete response in second wave</i>	378	797	1.175	22,3%	76,4%	69,4%
<b>Households in sample of 2nd wave running through from cawi in 1st wave</b>	707	184	707	100,0%	100,0%	100,0%
<i>of which complete response in second wave</i>	257	138	395	36,4%	75,0%	55,9%
<b>Households in sample of 2nd wave running through from cati in 1st wave</b>	376	350	376	100,0%	100,0%	100,0%
<i>of which complete response in second wave</i>	25	275	300	6,6%	78,6%	79,8%
<b>Households in sample of 2nd wave running through from capi in 1st wave</b>	611	509	611	100,0%	100,0%	100,0%
<i>of which complete response in second wave</i>	96	384	480	15,7%	75,4%	78,6%

Source: Statistics Netherlands; Datacollection

## 5.2 Reminder strategy

Two reminder strategies were used in the second wave. Half of the sample received a reminder by mail, the other half did not (random assignment in advance). Cawi response is higher among households that received a reminder, but cati response is lower (Table 5). Overall, response is slightly (but not significantly) higher among households that received a reminder.

Table 5 Response results second wave, specified by reminder strategy

	Second wave					
	cawi	cati	Total	cawi	cati	Total
	N			%		
<b>Total households in sample with reminder</b>	817	476	817	100,0%	100,0%	100,0%
<i>of which complete response</i>	212	360	572	25,9%	75,6%	70,0%
<b>Total households in sample without reminder</b>	877	567	877	100,0%	100,0%	100,0%
<i>of which complete response</i>	166	437	603	18,9%	77,1%	68,8%

Source: Statistics Netherlands; Datacollection

## 5.3 Partial response

Partial response (when not all household members respond) is 3,1 percent in cawi and 3,5 percent in total in the first wave. This is more than in the regular design (1,5 percent), but well below 5 percent. At the start of the pilot, it was agreed that a partial response rate below 5 percent would be considered acceptable.

## 5.4 Proxy reports

The number of proxy reports appears to be the same in cawi as in cati (both lower than cati). In households with two members, for example, about one in three reports are proxy. The results should be treated with some caution, however, because the cawi question asking which person is going to answer the questions about person X is pre-filled with the answer 'person X' (for technical reasons). Respondents might have overlooked that they have to change this actively in case of proxy report.

## 5.5 New questions about educational attainment

Parallel to the pilot, a separate field test was conducted to test new questions about educational attainment that do not require the use of complex automatic coding modules. The field test included the modes cawi and cati. During this test Cati interviewers wrote down comments and questions of respondents and themselves. Cawi respondents were contacted afterwards by telephone to share their experiences with the new questions. Based on the reactions from respondents and interviewers, the new questions about education appear to function well. Respondents who answered the questions proxy, indicate that they had no difficulty. In addition, the new questions take less time to complete than the old questions. Subsequently the new questions are implemented as well in the CAWI questionnaire as in the CATI/CAPI questionnaires.

## 6 Design changes

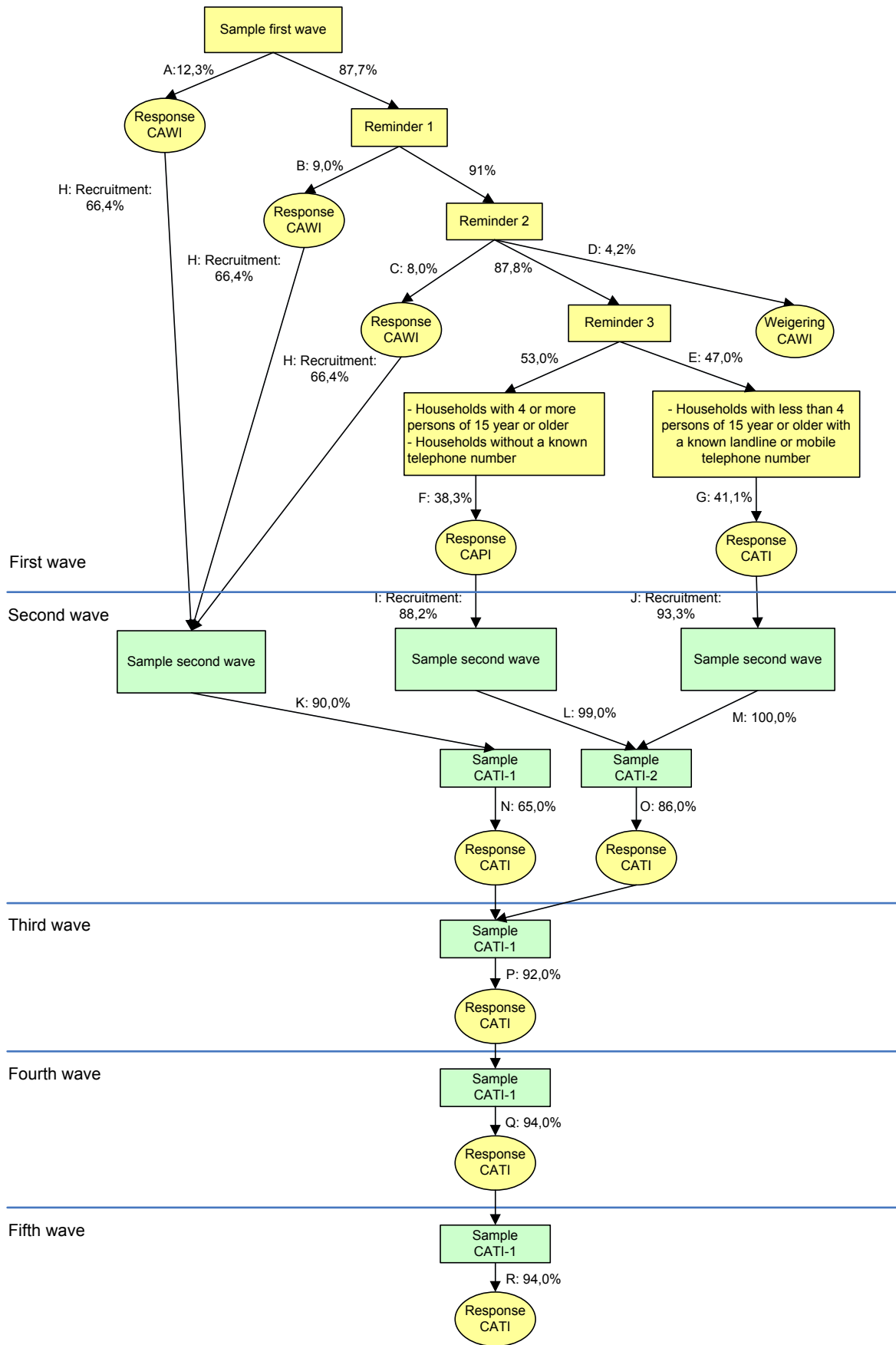
On the basis of the results of the pilot it was concluded that the approach strategy of the pilot could not be used for the parallel run of the LFS without any adjustment. In the parallel run a slightly different approach strategy will be used. The first wave of the LFS will be almost identical to the first wave of the pilot. There are two differences. Firstly, in order to generate a higher cost reduction a larger portion of the cawi nonrespondents will be approached by telephone: all households consisting of up to three people of 15 years of age or older for which a landline telephone number is available will be approached by telephone. Secondly, cawi-respondents of the first wave are only asked for their telephone number if this is not yet available.

The approach strategy for the second wave is adjusted fundamentally. The CAWI mode will not be used at all in the second wave. If a telephone number is available, the second wave is carried out by telephone. From table 4 in paragraph 5.1 it was concluded that of all cawi respondents of the first wave who indicated that they were willing to participate in the second, only 36,4 percent actually did so via cawi. This is rather disappointing. Moreover it was concluded that the follow-up approach by telephone of web nonrespondents did not raise the response level to the customary response level for the second wave of the LFS. Also the response by web in the second wave for cati or capi respondents of the first wave is very low and the total response level of these groups is actually lower than in the regular design. Therefore it was concluded that web data collection does more harm than good for the second wave of the LFS.

Cawi respondents of the first wave for which no telephone number is available are excluded from the following waves. It is assumed that the majority of respondents of the first wave will be prepared to give a telephone number if none is available. The remaining portion of respondents, meaning the ones that are not prepared to give a telephone number, is assumed to be so small that the number of responses generated from this portion in the second and following waves is outweighed by the amount of work needed to approach them. The future will show if these assumptions are justly made. The third to fifth wave were not carried out in the pilot, so no empirical facts are available. Since in the second wave only data collection by telephone is carried out, it is logical to go ahead with this strategy in the following waves.



# Approach strategy LFS 2012 including response rates



(1) The response rates indicated between square brackets are a percentage of the initial sample. The response rates not indicated between square brackets are percentages of the subportion.

## 7 Conclusions and further research

The most important conclusion of the pilot is that moving to the Internet is very well possible and reduces costs in the first wave of the LFS, but also results in higher attrition rates in the panel of the LFS. So, when implementing cawi or any other non-interviewer supported mode in a panel design, attention should be paid to the willingness of respondents to participate in following waves. In the new mixed-mode design of the LFS that is introduced in 2012 at Statistics Netherlands, this problem is addressed by approaching all respondents only by telephone and not through the Internet in the second and following waves. Also research on the design of the LFS now focuses on improving recruitment rates of cawi respondents.

From the Blaise programming point of view, most of the requirements in the design, such as the introduction of the flexible summary with persons of 15 years and older, have been met. The programmers succeeded to build a good working mixed mode LFS household questionnaire within the imposed deadline.

## References

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