

# LFS Mixed Mode

How to apply mixed mode in a questionnaire with address samples?



# Agenda

- Why Mixed Mode?
- Objectives
- Introduction Mixed Mode in LFS
- Mixed Mode Design CAWI Pilot
- Demo LFS CAWI Survey
- Results pilot 2011
- Lessons learned
- Mixed Mode Design 2012
- Latest results in 2012

# Why mixed mode?

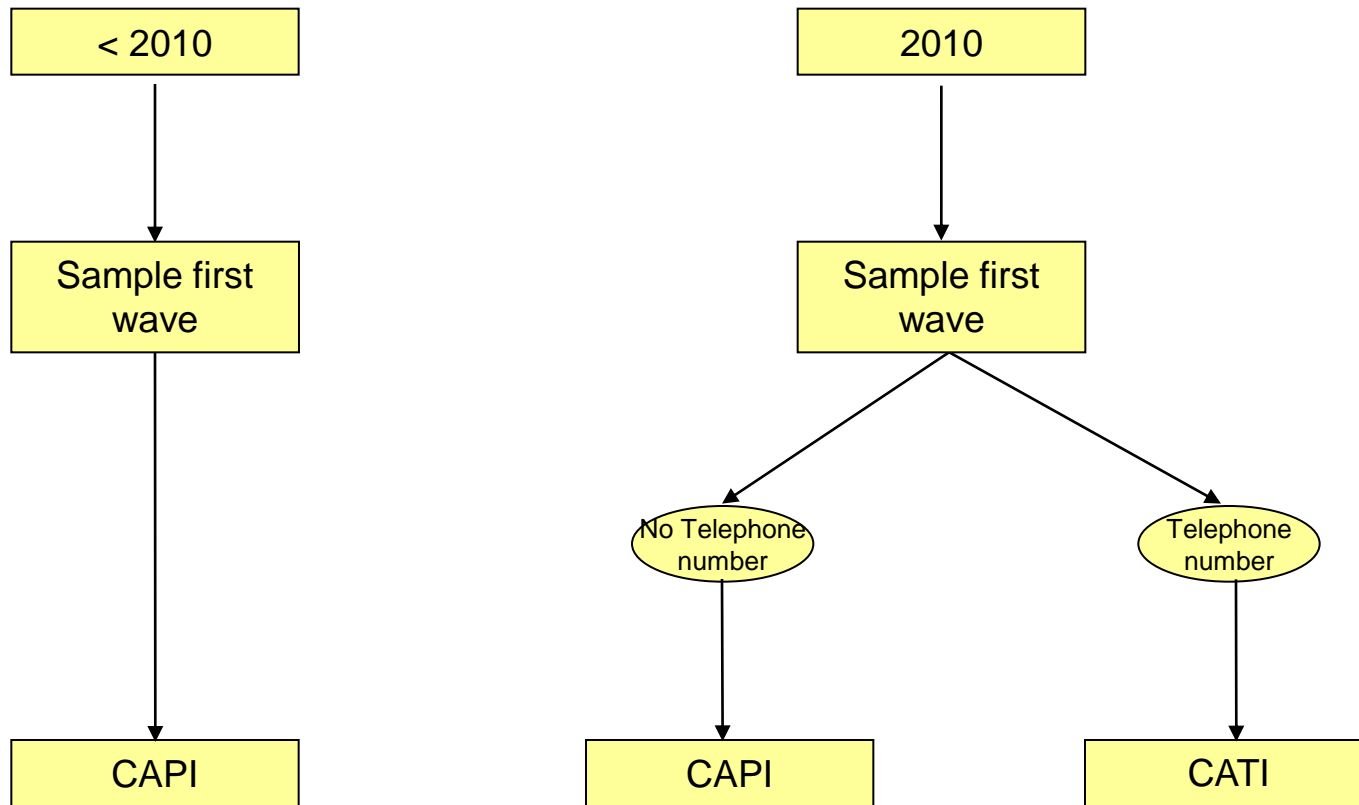
- Major drivers:
  - Reduce costs of data collection
  - Rapid development of the internet as a survey mode
  - Decreasing availability of telephone numbers
  - Users require more flexibility in implementing new surveys

## Goals met

- To react to these developments, Statistics Netherlands initiated a programme to redesign its social surveys.
  - Introduction of a sequential mixed mode data collection strategy. Multiple contact attempts are implemented using different modes in a prespecified order.
  - Cost effective → Start with self-administered modes that have low administration costs.
  - Interviewer-administered modes to re-approach the remaining nonrespondents.

# Sequential Mixed Mode LFS Step 1

- All household members of 15 years or older are interviewed.



# Lessons learned LFS survey mixed mode CATI/CAPI 2010

- Main conclusions on interviewing households by other modes than capi:
  - Interview durations of households consisting of more than 3 people of 15 years or older should not be too lengthy.
  - Households with a known mobile phone number are hard to reach due to a high number of invalid or otherwise unusable phone numbers → Approach by CAPI instead of CATI.

# LFS survey mixed mode CAWI/CATI/CAPI Pilot 2011

- The CAWI mode will be introduced in the LFS survey in 2012.
- The new design is run in parallel to the current CATI/CAPI-design for six months  
→ compare both designs and measure discontinuities directly.
- First conduct a pilot in 2011 to provide input on how to introduce CAWI in LFS.

# LFS survey mixed mode CAWI/CATI/CAPI Pilot 2011 practical issues

- Practical issues regarding interviewing large households by internet or telephone:
  - Difficult to ensure that every household member fills out the questionnaire → partial nonresponse.
  - Automatic coding modules for educational attainment, economic activity and occupation are complex and have to be operated by trained interviewers. These modules had to be simplified and adjusted to be available for self-administered questionnaires.



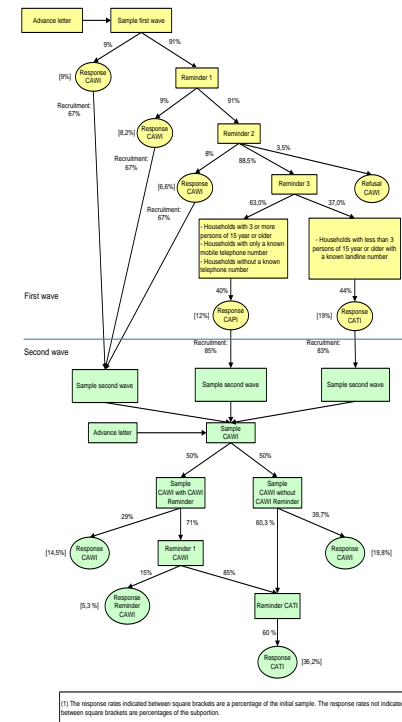
# LFS survey mixed mode CAWI/CATI/CAPI Pilot 2011 objectives

- Main objectives of this pilot is to find out:
  - Expected response rates from the first and the second wave.
  - Expected response rates for specific sections of the population.
  - To what extent the partial responses changes by introducing web data collection.
  - To what extent the proxy reports changes by introducing web data collection.

# Sequential Mixed Mode LFS Pilot 2011

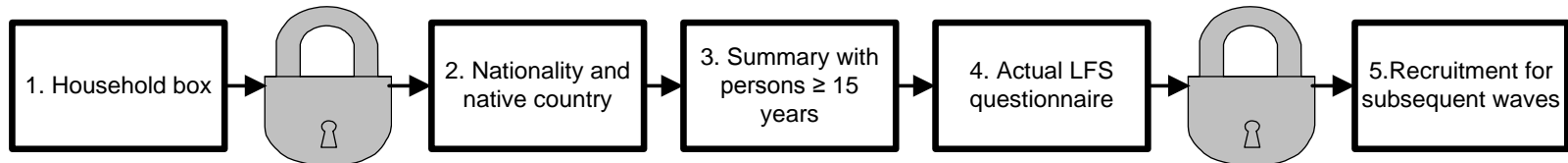
## Step 2

- Sample size pilot 4 000 addresses
- Two Waves:
  - Expected response first wave:
    - Estimated 24% expected to respond via web
    - Estimated 31% expected to respond by telephone and face-to-face.
  - For the second wave no expected response was guaranteed in advance.



# LFS survey mixed mode CAWI/CATI/CAPI Pilot 2011 development and programming

- The LFS questionnaire consists mainly of 5 chapters.



- Samples:
  - Based on address data
  - Contains details about a specific address and a telephone number and not about the inhabitants

## LFS CAWI survey

- Household with husband and wife and two children:
  - John, male, married, birthdate 11/11/1962
  - Mary, female, married, birthdate 24/06/1963
  - David, child, male, single, birthdate 21/07/1993
  - Jane, child, female, single, birthdate 22/02/1998

# LFS survey mixed mode CAWI/CATI/CAPI Pilot 2011 results first wave

- First wave total response of 54,1% achieved. This is about the same result as in the first wave of the regular LFS (January – March 2011). Half of the response achieved by CAWI.

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

# LFS survey mixed mode CAWI/CATI/CAPI

## Pilot results recruitment subsequent waves

- At the end of the first wave respondents were recruited for the following waves. The total recruitment rate for the subsequent waves is 78,5%, which is about 10 percent points lower than in the regular design → due to a lower recruitment rate in CAWI and most CAWI respondents refuse to fill in their telephone number.

Table 3 Response results first wave

	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

# LFS survey mixed mode CAWI/CATI/CAPI Pilot 2011 results second wave

- Second wave total response of 69,4% achieved. CATI response between 75,0 and 78,6% which is considerably lower than in the regular design (about 88%) → introducing CAWI 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.

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

Source: Statistics Netherlands; Datacollection

# LFS survey mixed mode CAWI/CATI/CAPI

## Design changes in LFS 2012 first wave

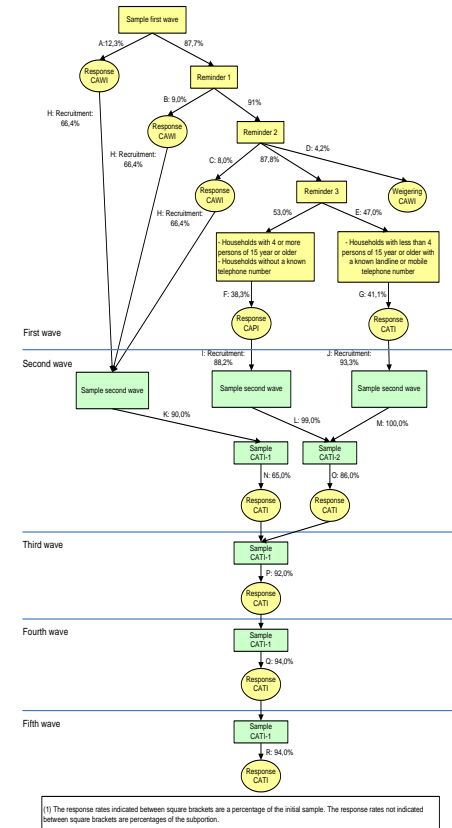
- On the basis of the results of the pilot it was concluded that the approach strategy of the pilot could not be used for the CAWI LFS 2012 without any adjustment.  
The first wave is almost identical to the first wave of the pilot. There are two differences:
  1. To generate a higher cost reduction a larger portion of the CAWI non respondents will be approached by telephone → all households consisting of up to three people of 15 years or older with a known landline or mobile telephone number will be approached by telephone.
  2. CAWI-respondents of the first wave are only asked for their telephone number if this is not available yet.



# LFS survey mixed mode CAWI/CATI/CAPI

## Design changes in LFS 2012 second wave

- The approach 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.
- CAWI respondents of the first wave for which no telephone number is available are excluded from the following waves.



# LFS survey mixed mode CAWI/CATI/CAPI

## Conclusions

- 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.
- CAWI results in higher attrition rates in the panel of the LFS → attention should be paid to the willingness of respondents to participate in following waves.
- Research on the design of the LFS now focuses on improving recruitment rates of CAWI-respondents.

# LFS survey mixed mode CAWI/CATI/CAPI

## Latest results of the LFS Questionnaire 2012

- The CAWI mode of the LFS in 2012 started in February. The new design is run in parallel during six months to the current CATI/CAPI design.
- The CAWI response rates of the first wave in February and March were about 25%. However, the recruitment rates in the CAWI questionnaire for the households for which a telephone number was known and were willing to participate in the following waves amounted only between 37% and 39%.
- As the recruitment results had to be improved, the recruitment question in the questionnaire was changed in April. So far the recruitment for the following waves increased from 39% to 67,9%.

# LFS survey mixed mode CAWI/CATI/CAPI

## Latest results of the LFS Questionnaire 2012

201202			201203			201204		
Cawi			Cawi			Cawi		
Eindresultaat	Aantal	%	Eindresultaat	Aantal	%	Eindresultaat	Aantal	%
3	1	0,0	3	5	0,0	NULL	9.730	87,5
5	4	0,0	5	5	0,0	3	3	0,0
7	4	0,0	7	2	0,0	4	1	0,0
9	2	0,0	9	1	0,0	5	1	0,0
14	35	0,3	14	38	0,3	7	4	0,0
20	58	0,5	20	62	0,6	9	1	0,0
21	2	0,0	22	42	0,4	14	22	0,2
22	35	0,3	23	9	0,1	20	8	0,1
23	5	0,0	30	2.789	25,1	21	1	0,0
30	2.768	24,9	31	242	2,2	22	3	0,0
31	244	2,2	50	2	0,0	23	1	0,0
50	2	0,0	52	4.302	38,7	30	1.249	11,2
52	1	0,0	53	3.603	32,4	31	87	0,8
53	7.951	71,5	54	23	0,2	50	1	0,0
54	13	0,1		11.125	100,0	54	11	0,1
	11.125	100,0				81	2	0,0
							11.125	100,0
Blokkade_we	Aantal	%	Blokkade_we	Aantal	%	Blokkade_we	Aantal	%
NULL	1.090	36,2	NULL	1.034	34,1	NULL	848	63,5
21	244	8,1	21	242	8,0	21	87	6,5
22	1.678	55,7	22	1.755	57,9	22	307	23,0
	3.012	100,0		3.031	100,0	25	94	7,0
							1.336	100,0
Werving = Ja en telnr		39,4	Werving = Ja en telnr		37,1	Werving = Ja		75,4
						Werving = Ja en telnr		67,9

# LFS survey mixed mode CAWI/CATI/CAPI Questions

Thank you for your attention.

Do you have any questions?