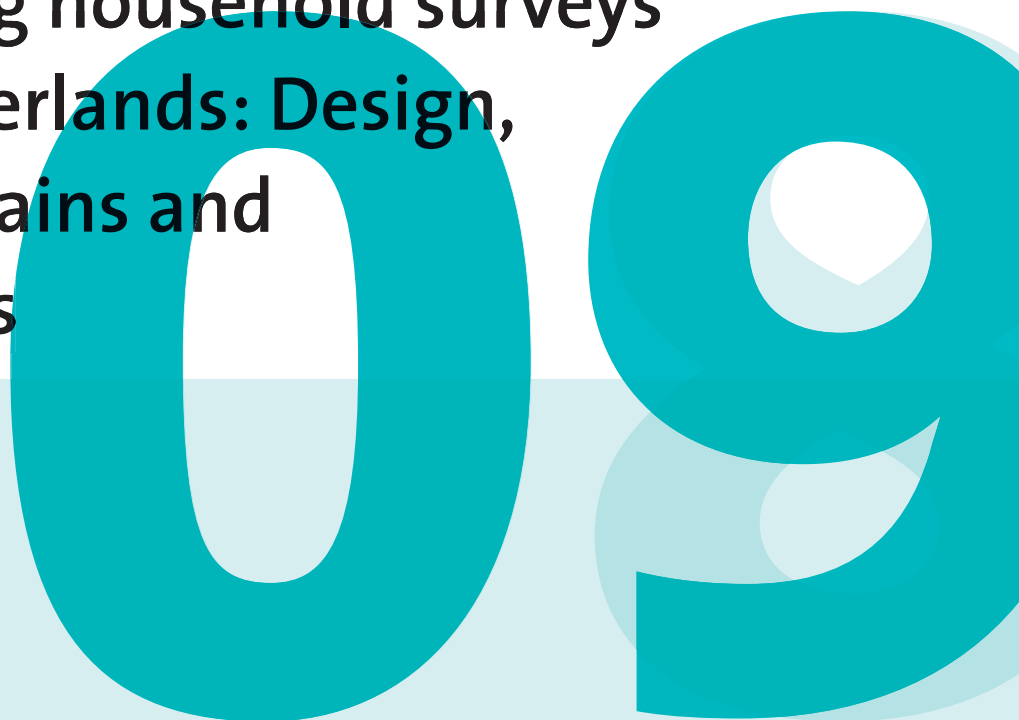


Modernising household surveys in the Netherlands: Design, Efficiency Gains and Perspectives



Paul van der Laan and Wim van Nunspeet

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Explanation of symbols

.	= data not available
*	= provisional figure
x	= publication prohibited (confidential figure)
–	= nil or less than half of unit concerned
–	= (between two figures) inclusive
0 (0,0)	= less than half of unit concerned
blank	= not applicable
2007–2008	= 2007 to 2008 inclusive
2007/2008	= average of 2007 up to and including 2008
2007/'08	= crop year, financial year, school year etc. beginning in 2007 and ending in 2008
2005/'06–2007/'08	= crop year, financial year, etc. 2005/'06 to 2007/'08 inclusive

Due to rounding, some totals may not correspond with the sum of the separate figures.

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Modernising household surveys in the Netherlands: Design, Efficiency Gains and Perspectives¹

Paul van der Laan and Wim van Nunspeet

Summary: The present paper outlines the current modernisation programme of household surveys carried out by Statistics Netherlands. It focuses on its objectives in terms of data collection and standardisation of processes, efficiency targets and relevance and quality of outputs. The short and medium term goals and the European context are discussed and the experiences gathered so far are presented. This redesign project of household surveys is part of a large-scale modernisation programme of statistics production at Statistics Netherlands.

Keywords: Household surveys; primary data collection methods; process redesign; efficiency; Netherlands

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1. Introduction

Household surveys are core business of statistical offices. They provide vital information on the population and its living conditions for policy and research. However, collecting data using surveys is often a very complex, costly and time-consuming process. Over the last decades cost reductions have become part of life for most government agencies. Furthermore, for some surveys statistical offices are operating in a competitive market. It is therefore of the utmost importance that household surveys are carried out by statistical offices as cost-efficient as possible.

A little over ten years ago, Statistics Netherlands completed a large-scale redesign of its household surveys (Statistics Netherlands 1998). One of its main features was the introduction of a continuous integrated survey on living conditions called POLS, which opened up a more efficient and effective use of computer-assisted interviewing, both Computer-Assisted Personal Interviewing (CAPI) and Computer-Assisted Telephone Interviewing (CATI). A mixed-mode design was later applied in the Labour Force Survey which changed to a rotating panel design in 1999. After a first wave based on CAPI observations, the following four waves are all done by means of CATI.

Traditionally, there are three modes of data collection for social surveys: face-to-face interviewing, telephone interviewing and postal surveys with written questionnaires. Nowadays, web surveys seem to be an attractive new mode to collect survey data, because they provide simple, cheap and fast access to a large group of people. Although there are still many pitfalls with web surveys (Bethlehem 2008), statistical offices cannot ignore this mode of data collection, if they want to stay competitive and attractive to respondents and users. For example, Internet coverage in the Netherlands is higher than listed phone numbers. As well as pitfalls, there are also many positive experiences with web surveys, as long as a sound methodology is used. In particular the online survey should not be founded on self-selection, but on a probability-based recruitment survey (Hoogendoorn and Daalmans 2009).

At the moment, Statistics Netherlands has made only limited use of mixed-mode data collection and Internet modes in regular statistics production. However, Statistics Netherlands is faced with an increasing demand for responsiveness of household surveys to meet new or more timely national and EU policy needs as well as with budget restrictions. So, it is time to reorient our mixed-mode approach to incorporate data collection through the Internet as well and make our data collection methodology better adapted to future developments.

Moreover, during the last decade more register data have become available in the Netherlands which have the potential of replacing primary data collection through surveys or to improve the efficiency or quality of household surveys.

All changes in the way household survey data are collected and processed should fit into the overall business architecture and information model of Statistics Netherlands as part of a large-scale modernisation programme of our production processes to create higher efficiency and to reduce the large number of separate ICT applications (Van der Veen 2007). A recent communication from the European Commission on the production method of EU statistics also calls for a large-scale re-engineering of statistical production processes to create a more efficient business architecture and to implement an integrated model of producing statistics (European Commission 2009).

The present paper outlines the current redesign project of household surveys at Statistics Netherlands. It focuses on its objectives in terms of data collection and standardisation of processes, efficiency targets, increasing relevance and maintaining quality of outputs. The short and medium term goals are discussed and the experiences gathered so far are summarised.

The next section outlines the driving forces and the objectives of the redesign project of the Dutch household surveys. Section 3 shows the requirements of the project and section 4 presents the experiences gathered so far. The targets for the next two years are discussed in section 5. Section 6 considers the redesign project in the European context. The last section presents the conclusions.

2. Driving forces and objectives of the redesign

In the past continuous attempts have been made to improve the timeliness and to reduce the costs of household surveys, while at the same time maintaining a high level of data quality. Developments in information technology in the last decades of the previous century made it possible to use laptop computers for data collecting. This led to the introduction of computer-assisted interviewing (CAI). Replacing the paper questionnaire by an electronic one turned out to have many advantages, among which were considerably shorter survey processing times and higher data quality. The rapid development of the Internet has led to another new type of data collection: Computer-Assisted Web Interviewing (CAWI). A web survey (also sometimes called online survey) is usually a self-administered survey: respondents visit a website and complete the questionnaire by filling in a form online.

Mixed-mode surveys combine several methods of data collection – face-to-face, paper-and-pencil, telephone and/or Internet – in one survey. Mixed-mode data collection offers more advantages than being cheaper than surveys with only field interviewers, who visit respondents at home. In the Netherlands social surveys are not mandatory. So, the scope of mixed-mode data collection is also to increase the response rate as well as the representativeness of the sample by approaching respondents in different ways. For example, reaching respondents who are seldom at home by telephone or visiting people without a known telephone number. Using mixing modes we can avoid the strong response and selection biases occurring in

uni-mode surveys. In this way coverage and response problems are tackled at the same time.

Besides developments in information technology, there are also other driving forces that give cause for reconsidering the present state of the household surveys. Since the last large-scale redesign of its household surveys, Statistics Netherlands has more register data at its disposal to produce statistics. This means that part of the primary data collection can be replaced by administrative sources, unless by current standards the quality or timeliness of the administrative data are still too low. Next to replacing variables in surveys by variables obtained from administrative sources, register data can also help in improving the efficiency of the survey process by supporting more efficient sampling schemes. Moreover, register data can also help in improving the quality of the output of household surveys by providing auxiliary variables for reweighting purposes. For this last purpose the timeliness demands on the administrative data are also less high.

In addition to these possibilities to improve the cost-effectiveness of household surveys, specifically to cut back face-to-face interviewing expenditure, user demands require adapting running surveys and adding new modules or questions in a flexible and easy manner.

We can therefore summarise the main objectives of the redesign project in terms of increasing the efficiency of primary data collection, increasing the response rates or improving the representativeness of household surveys, optimal use of administrative data and last but not least increasing the flexibility of primary data collection among persons and households.

3. Requirements of the project

At the end of 2007 the project to redesign the Dutch household surveys was launched.² The first step was to define the requirements for the project. These requirements are:

- Creating a data collection model consisting of a basic or core questionnaire with follow-up modules
- Reducing the field staff for household surveys with 40 per cent
- Application of mixed-mode data collection in the basic questionnaire and follow-up modules, at least consisting of telephone interviewing and self-administered web interviewing, i.e. using cheaper modes of data collection
- Introducing model-based estimators for key labour market variables

² The Household Budget Survey and occasional time use surveys need special treatment and are not part of this project. Besides, quite recently the methodology of the Dutch Household Budget Survey has been completely overhauled.

- More flexibility in adapting running surveys to user demands and policy needs
- The quality of the household survey data should remain constant
- Breaks in time series of key results (e.g. the unemployed labour force) should be quantified and adjusted as far as possible. No more than one break in series is acceptable.

Basic questionnaire

With regard to the basic or core questionnaire in the new data collection model the requirements are the following:

- As few questions as possible
- Only include background variables of persons that last well (i.e. characteristics that are of a structural nature), but
- Add variables that need many observations because they need to measure short-term changes (e.g. changes in the employed and unemployed labour force)
- Use questions to screen respondents in an effective way for follow-up modules.

Final decisions concerning the contents of the basic questionnaire have still to be taken, but the Health Interview Survey 2009 uses and tests a first version of the basic questionnaire. This questionnaire consists of questions about:

- Household box (check on size and composition of the household of the respondent(s))
- Educational attainment (highest level of education completed)
- Labour market participation
- Branch of economic activity of self-employed persons and unpaid family workers
- Occupation in employment
- Religion (denomination or ideology)
- Voting behaviour as a proxy for social participation³
- Canvass for follow-up modules.

Survey information concerning

- sex, age (date of birth), marital status (legal and *de facto*), place of usual residence, country of citizenship, country of birth (of the respondent and his or her parents), household (and family) size and composition,

³ In 2009 these questions about voting behaviour of respondents will be analysed whether these produce relevant output variables on social cohesion and/or help in substantially reducing the survey bias caused by differential non-response.

- status in employment, branch of economic activity, earnings and location of place of work of employees⁴,
- household income, tenure status of living quarters and degree of urbanisation

of respondents is already included in the core module of the Dutch Social Statistics Database, the overarching database on which all output of social, regional and spatial statistics is or will be based. The variables in the core module of the Social Statistics Database are derived from registers and cover the entire population. This core module therefore functions as a continuous census of basic characteristics of the Dutch population. For each person the variables in core module of the Social Statistics Database are linked to the basic questionnaire survey microdata. Moreover, these Social Statistics Database variables are also available for non-respondents and are used to reweight the net sample or to make imputations for missing variables.

Regarding the measurement of the variable educational attainment, Statistics Netherlands is in a period of transition. The next decades little by little use will be made of primary data collection and the use of registers will increase in stages. So, the long-term perspective is that educational careers and the highest level of education completed can be included in the core module of the Social Statistics Database as well.

4. Data collection experiments

Comparability over time is a key aspect of the quality of survey data. To maintain uninterrupted time series, surveys conducted by national statistical institutes are often kept unchanged as long as possible. However, modifications in the survey process will almost always result in a break in series. Even within the same data collection mode a change in a questionnaire, like changing the routing of the questions asked, may result in incomparable results. It is important to minimise the impact of a change in survey methods so as to minimise the inconvenience for users. Therefore, Statistics Netherlands started with a series of experiments to quantify discontinuities in repeated surveys due to adjustments in the survey process (Van den Brakel et al. 2008; Van den Brakel and Roels 2009). Especially the Labour Force Survey produces a set of key labour market indicators which should not be affected by incomparability over time.

'Mode effects'

In mixed-mode surveys often a sequential approach is taken. First, the cheapest mode of data collection is applied: web interviewing and postal (paper and pencil)

⁴ However, short-term data on status in employment and branch of economic activity will still have to be collected in household surveys because of lack of timeliness of the corresponding register data.

surveys. Non-respondents are re-approached with the next cheapest mode of data collection: telephone interviewing. Finally, for remaining non-respondents, the most expensive mode of data collection is used: face-to-face interviewing.

A well-known but not well-defined problem with mixed-mode data collection is caused by so-called 'mode effects'. The same survey can have different outcomes depending on the mode of administration. These differences can all be ascribed to 'mode effects'. However, these different outcomes can have quite differing causes. A survey mode can influence the character and magnitude of coverage errors, of non-response errors and of measurement errors. These errors together cause the differences. It is important to try to disentangle these effects and quantify mode effects in the narrow sense of measurement errors which are related to the survey mode. Measurement errors are observation errors (as opposed to non-observation errors like under-coverage errors and non-response errors) and related to the questionnaire used in the survey. 'Mode effects' thus increase or decrease the bias in a survey.

From a literature review on mixed mode studies it can be deduced that the presence of an interviewer plays an essential role. The interviewer can assist in explaining the questions, triggers on the other hand sometimes social desirable response behaviour, but can also motivate the respondent, so minimising 'satisficing' (response behaviour that results from not performing the phases of the question-answer process carefully and comprehensively). Significant mode effects are frequently reported in the literature and these are strongest between modes with and without an interviewer. This applies particularly to the number of answers in the categories "other", "unknown" or "don't know". However, the magnitude of mode effects is rarely reported and different studies on the same subject, for example reported alcohol consumption, do not always have the same effect. Important to note is that mode effects do not occur with all variables or all kinds of questions in the same manner. However, the literature review points out that mode effects do exist and should be taken seriously. This leads to the conclusion that by introducing in a mixed-mode design an Internet or postal version, the risk of mode effects will probably increase. On the other hand, the present literature does not suggest that mixing modes will cause such mode effects that a mixed-mode design should be discouraged. On the contrary, in general there seems to be no right mode for a particular survey. Some variables are for example better measured using CAPI, some of them are better measured using CAWI.

Experimental research

As yet Statistics Netherlands has carried out some field experiments in mixed-mode designs. These concerned the European ICT Survey in 2005, a pilot survey on the Informal Economy (especially on 'undeclared work') in 2006 and the Crime and Victimization Survey in 2006 and 2007. These field experiments were aimed in the first place at investigating the feasibility of mixed-mode designs and optimising

these designs in order to get a high response at low costs. They were not intended to study systematically mode effects separately from selection and response effects.

In the ICT Survey experiment the non-respondents of the CATI survey were approached and asked to fill in a web questionnaire. This resulted in a small increase in response of a few percentage points. After two experiments the national Crime and Victimization Survey attained the same response rate (around 67 per cent) with a web survey followed by CATI or CAPI as the regular Crime and Victimization Survey, which started with CATI followed by CAPI. However, the costs of an approach strategy that starts off with a web survey followed by CATI or CAPI were about 25 per cent lower than those of the regular approach strategy (CATI/CAPI only).

In the first quarter of 2008 a Mobility Survey was fielded for the Ministry of Transport, Public Works and Water Management in a mixed-mode pilot. This is a survey in which all members of a household have to fill in a person level questionnaire. Also a household questionnaire has to be answered. In the last quarter of 2008 a large scale Internet experiment was fielded regarding the Housing Conditions Survey for the Ministry of Housing, Spatial Planning and the Environment. That experiment offered the opportunity to compare outcomes of CAPI and web on a large scale, the CAPI mode having at least 32,000 records and the web mode 8,000.

To research the participation of ethnic minorities in the Netherlands in surveys Statistics Netherlands experimented with tailored approach strategies in cooperation with the Department of Methods and Statistics of Utrecht University. This research concentrated on the effects of incentives on ethnic minority cooperation rates and the differences between the cooperation rates of ethnic minorities and comparable native Dutch sampled units. We found out that prepaid incentives had a substantial positive effect on the rates of cooperation of native Dutch sampled units and Western foreigners (Wetzels et al. 2008). This effect is only modest among non-Western foreigners. Non-Western foreigners in the Netherlands are mainly from Surinam, Turkey, Morocco, the Netherlands Antilles and Aruba. Statistics Netherlands and Utrecht University also matched ethnic minorities with native Dutch sampled units using propensity score matching to compare the effect of incentives on cooperation rates of ethnic minorities and comparable native Dutch sampled units. We found out that the increase in cooperation rates is larger on the part of the native Dutch than ethnic minorities (Feskens et al. 2008).

The past years Statistics Netherlands also carried out a series of experiments embedded in the Labour Force Survey which were aimed at quantifying the effect of alternative questionnaires, modes of data collection and approach strategies on the estimates of the employed and unemployed labour force (Van den Brakel 2008).

Based on experiments so far, our experience is that in the first stage of a sequential approach strategy, the CAWI mode (sometimes including a PAPI mode for those respondents who prefer to fill in a written questionnaire), Statistics Netherlands has

achieved 25-30 per cent response, depending on the type of survey. Re-approaching the non-respondents with a CATI mode yields another 25-30 per cent response. Finally, the CAPI mode for the remaining non-respondents (without known telephone number) can add 10-15 per cent additional response. However, these percentages do not seem stable and will most likely change in future under the influence of Statistics Netherlands' preferred approach strategy for household surveys.

Modelling and stratification

Statistics Netherlands also carries out research to improve the quality of the data on the unemployed labour force by introducing model-based estimators. The common estimation procedure for short-term data about employment and unemployment is based on the generalised regression estimator, because it is approximately design unbiased. As the monthly sample size of the Dutch Labour Force Survey is too small to produce reliable monthly information about employment and unemployment, each month the samples observed in the preceding three months (i.e. 13 weeks) are used to estimate moving averages of the key data on the labour market situation. Annual data are of course published at a much more detailed level.

Model-based estimators generally have smaller variances than generalised regression estimators, because they explicitly rely on statistical models to borrow sample information that is observed in other domains or in preceding periods. By using borrowing strength over space or over time the reliability of data on employment and unemployment can be improved, both of monthly data and of small area data. Statistics Netherlands will use a multivariate structural time series model that explicitly accounts for the rotating panel design of the Labour Force Survey to improve the reliability of monthly unemployment data and to overcome the bias caused by combining initial CAPI and follow-up CATI modes. Mixed models for small area estimation are used to improve the annual data on the employed and unemployed labour force at the level of (small) municipalities. It goes without saying that these models have to be selected and evaluated with great care and that they will only be used to estimate monthly data or small area data for selected indicators.

Finally, as of 2009 registered job-seekers are oversampled in the Labour Force Survey. Addresses where at least one person is living who is signed on at the employment office are oversampled with a factor 2. This oversampling will reduce the variance of the estimates of the unemployed labour force with 15-20 per cent. This means that the gross sample of the Labour Force Survey can be reduced by nearly 15-20 per cent without lowering the quality of the results. To reduce costs even further, addresses where only people aged 65 years or over are living, are undersampled, since the target parameters of the Labour Force Survey concern people aged 15-64 years. So, using a stratified sample for the Labour Force Survey creates substantial efficiency gains compared to using an unstratified one.

Quality monitoring

One of the prerequisites of the redesign project is that the quality of the survey data should remain constant. In order to monitor the survey data quality, Statistics Netherlands has developed a set of indicators to monitor the effects of subsequent modifications in the survey process on the quality of the data produced. These indicators are proxies for changes in relevance, accuracy, timeliness, accessibility, comparability and coherence of survey data. Accuracy is for example monitored using the dimensions precision, over-coverage, under-coverage, 'linkability' of respondents, unit non-response, item non-response, proxy responses, questionnaire tests in the Questionnaire Laboratory, measurement errors, edits and imputations and sensitivity (e.g. maximum Root Mean Square Error).

5. Current targets

This year (2009) a first version of the basic questionnaire is used in the Health Interview Survey. For the Labour Force Survey a first stage of the implementation of model-based estimation procedures will be implemented and job-seekers are oversampled. Finally, the quality procedures for survey transitions are worked out and we have a 2006 bench-mark for the set of quality indicators.

Based on the experiences in 2008 and 2009 and the results of the project so far, the following targets are formulated for 2010:

- Final version of the basic questionnaire is fixed
- The basic questionnaire is also included in the Labour Force Survey
- The modes of the first wave of the core (mandatory) variables of the Labour Force Survey are both CATI and CAPI
- The design of the modules of the non-core variables of the Labour Force Survey and of EU-SILC is implemented
- The modes of the core variables of the Health Interview Survey are CAWI, CATI and CAPI
- The design of the module(s) of the non-core variables of the Health Interview Survey is implemented
- An improved computer-assisted self-administered questionnaire for educational attainment, branch of economic activity and occupation that can be used in web surveys is operational
- All model-based estimation procedures are fully implemented.

The Health Interview Survey 2009 uses and tests a first version of the basic questionnaire. Testing the use of a basic questionnaire will provide useful experiences how the new household survey model works in practice. At the end of 2009 the final version of the basic questionnaire will be developed. Decisions have

to be taken in that respect on the inclusion of questions about for example general health status and main social activities of persons.

Ideally we would have liked to introduce a CAWI mode for the first wave of the core variables of the Labour Force Survey as well in 2010, but this would be too risky, especially for the measurement of educational attainment, branch of economic activity and occupation. Most likely this would lead to a break in series which cannot be fixed. So, in the first stage we will only introduce a CATI mode in the first wave of the Labour Force Survey. In order not to introduce any breaks in series in 2010, the first months of 2010 the old CAPI design will be held in a parallel mode to the new design. Comparison of the results obtained by both modes will have to demonstrate how long we will need this parallel mode.

The redesign of questionnaires (among which separating out mandatory and other sets of variables and allocate these among modules) as well as building and testing new mixed-mode questionnaires take up a lot of effort in 2009. An important question is whether to use one set of questions for different modes ('uni-mode design') or a dedicated set of questions per mode ('universal design'). A 'universal design' has important consequences for the collection and processing of data, because the set of questions can change from mode to mode in order to keep the question cognitively equivalent. At the moment a uni-mode design is preferred, unless there are serious objections.

Another issue we will have to tackle is to what extent we can use household samples effectively in a CAWI mode. Only the Labour Force Survey and EU-SILC use a household sample; all other sample surveys are persons based.

The present set questions used in our surveys for a detailed classification of educational attainment, branch of economic activity and occupation only have a CAPI and CATI version. So, for CAWI data collection we will need to develop a new self-administered questionnaire to determine a person's educational attainment and for employed persons their occupation and branch of economic activity.

The whole capacity planning process of household surveys needs to be redesigned as well. The monthly interview capacity needed for CAPI and CATI will fluctuate more than in the past and the estimated and realised CAWI response rates determine the interview capacity needed for respondents who have to be approached through CATI or CAPI.

The introduction of a complete mixed-mode data collection model either in 2011 or in 2012 for all household surveys will lead to a break in time series. Therefore, Statistics Netherlands will continue with experiments embedded in running surveys or execute small pilot surveys to gain enough empirical evidence about mode effects. Research on minimising mode effects and changes in coverage or response patterns will continue to adjust adequately for breaks in series.

6. The European context

Our household survey redesign project should of course also accommodate the European demand for statistics. In the European context two projects are of particular importance: the implementation of the core statistical variables in all European social surveys (Eurostat 2007) and the European Programme of Social Surveys (Eurostat 2008) as part of a long-term re-engineering strategy in the field of European social statistics (Eurostat 2009).

The core module of the Dutch Social Statistics Database supplemented with data from the basic questionnaire of the Dutch household surveys covers all core statistical variables, which are proposed for systematic introduction in all European social surveys.

The European Programme of Social Surveys (EPSS) is a recent Eurostat initiative, intended as a rolling programme of household surveys to be carried out over a three-year period. Both to allow for a careful preparation of the surveys in terms of data collection mode and questionnaire design and to ensure a certain degree of flexibility the EPSS is a welcome initiative. Besides, it offers opportunities to control the burden on national statistical institutes.

In order to be effective it is important, at least from Statistics Netherlands' point of view, that the EPSS works in such a way that it allows for a mixed-mode approach to survey taking. In so far as the data can be derived from registers or administrative data sources with the desired quality, the interview mode is not relevant. When data have to be collected through surveys, it is important that the European regulations concerned do not obstruct different modes of primary data collection, when they have proven to be an efficient way of data collection. Harmonisation of statistical outcomes at a European level should go hand in hand with maintaining a cost-effective national system of household surveys. In that respect, a design based on a modular structure is in our opinion essential for the EPSS to perform well.

7. Conclusions

Recently, interest in mixed-mode designs has increased, both because of the drive to increase the efficiency of data collection and because of external clients who insist on cheaper and more flexible data collection methods. The present target of Statistics Netherlands is to redesign all data collection among persons and households – which is always on a voluntary basis in the Netherlands – in a mixed-mode methodology.

A good example of a running mixed-mode survey is the national Crime and Victimization Survey carried out by Statistics Netherlands. This is a voluntary household sample survey of more than 15,000 respondents that uses four different data collection modes. It starts with offering the sampled persons a self-completion CAWI or PAPI mode. After two reminders respondents are approached by

telephone, if their phone number is found, or by CAPI if no phone number is available. The 2008 survey had a response distribution of 42 per cent CAWI, 16 per cent PAPI, 31 per cent CATI and 11 per cent CAPI. This means that for this particular survey, with a response rate of 60 per cent in 2008, Statistics Netherlands was able to collect an initial response rate of about 35 per cent using very cheap modes of data capture.

Not later than 2012, besides face-to-face and telephone, the mode of the first wave of the core variables of the Labour Force Survey will also be web based. This means that in 2012 all Dutch household surveys will at least use an Internet and/or telephone data collection mode. Most surveys will also keep their face-to-face mode to maintain an adequate response rate and representativeness. However, some dedicated surveys will require only face-to-face interviewing or written questionnaires. In particular the Household Budget Survey will keep its own appropriate mix of data collection modes (diaries, written questionnaires, CAPI, registers).

The introduction of a complete mixed-mode data collection model for all household surveys will lead to breaks in time series. For official statistics unbroken time series are of the utmost importance. Therefore, the next few years Statistics Netherlands will continue with experiments embedded in running surveys or execute small pilot surveys. This will offer opportunities to gather further experience with Internet questionnaires and mixing strategies to be able to adjust adequately for breaks in key series. Methodological research on minimising mode effects and changes in coverage or response patterns will continue.

A gradual and well-managed implementation at Statistics Netherlands of the new mixed-mode design from 2009 up to 2012 enables 'research on the run' and adjusting the project where necessary. Mode effects will primarily be reduced by piecemeal engineering.

The large efficiency gains of the redesign project offer Statistics Netherlands also the opportunity to expand its household survey programme slightly to include new demands of policy makers, especially with regard to (subjective) indicators about topics like social trust and solidarity, trust in government and institutions, the state of the neighbourhood, crime prevention and subjective well-being in general. Most of the information about what people think and feel is now the domain of commercial market research companies and polling organisations, often using a disputable survey methodology (Bethlehem 2008). The information they provide is usually based on online surveys where a database of people is sampled who have volunteered to participate in this kind of surveys. They are therefore not based on a random sample of the population whose opinions are sought. Nevertheless, the results of these opt-in or self-identified sample surveys play an important role in national political debate, sometimes even larger than the results of Statistics Netherlands' social surveys.

Finally, the European Programme of Social Surveys offers opportunities to a combined strategy to redesign our national and running European surveys and at the same time to incorporate emerging new national and European user demands.

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