



THE INTRODUCTION OF DEPENDENT INTERVIEWING ON THE BRITISH HOUSEHOLD
PANEL SURVEY

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ABSTRACT

This paper documents the introduction of dependent interviewing in wave 16 of the British Household Panel Survey (BHPS). Dependent interviewing is a method of designing questions on longitudinal surveys where substantive information, available to the survey organisation prior to the interview, is used to tailor the wording and routing of questions to the respondent's situation or to enable in-interview edit checks. The decision to introduce dependent interviewing in the BHPS was motivated by data quality issues and the paper discusses the reasoning behind this decision. A particular aim was to reduce measurement error that leads to cross-wave inconsistencies and hence biases in estimates of change, such as 'seam effects' in histories of employment or benefit receipt. The paper provides documentation for BHPS data users and outlines the implications of the changes made when using the data. The paper also provides information about the questionnaire design, testing process and technical aspects of the implementation, for survey practitioners and methodologists who may be considering implementing dependent interviewing on a longitudinal survey.

NON-TECHNICAL SUMMARY

This paper documents the introduction of dependent interviewing in wave 16 of the British Household Panel Survey (BHPS). Dependent interviewing (DI) is a method of designing questions in longitudinal surveys, where information about respondents obtained in past interviews is used to personalise the questionnaire and adapt it to the respondent's situation in future interviews. With computer assisted interviewing, previous information can be included in the formulation of questions, to remind respondents of previous responses and ask whether their situation has changed. Previous information can also be used to compute edit checks during the interview. In this case, the computer script compares responses with previous responses and prompts edit check questions if these differ.

The main motivation for introducing dependent interviewing in the BHPS was to improve data quality, in particular the longitudinal consistency of responses. DI can however also be used to identify and route around redundant questions, if the respondent's situation has not changed. The design of DI for the BHPS was inspired by other panel studies around the world and based on an earlier experimental study called 'Improving Survey Measurement of Income and Employment' (ISMIE). This study tested the effects of DI for different types of questions on a former sample associated with the BHPS. Based on the findings from this study, DI was introduced in three sections of the individual questionnaire: current employment, the labour market activity history and the household finance sections.

For the current employment questions, responses given in previous interviews were used to ask respondents whether their situation had changed. Respondents were for example reminded of their occupation at the previous wave and asked whether this was still the same. Similar questions were used to collect information about the employer, industry, whether employee or self-employed, managerial duties and size of employer organisation. This approach should make the survey task easier for respondents and thereby improve the consistency of data on employment characteristics across waves.

DI was also used for the questions asking about earnings from employment. Here the previous reports were used to compute automatic edit checks, whereby the current response was compared with the response from the previous interview. If there appeared to be an unusually large change in earnings, then a follow-up question was prompted, to check whether the change was real or due to an error in the data. This approach will reduce the number of outliers, by catching keying and reporting errors during the interview.

For the questions about respondents' labour market activities since the previous interview, the previous information was used as a starting point into the history. Respondents were reminded of the activity they were doing at the time of the previous interview and then asked what they had been doing

since. In contrast, in previous waves respondents were asked about their activities in reverse chronological order, starting with their current situation. The new approach will make it easier for respondents to remember activities in the past, and to provide reports that are more consistent with previous reports.

In the household finance section, DI is used to remind respondents of sources of unearned income which they have reported in the past, but not mentioned in the current interview. This will help respondents recall and identify sources, from the list of 35 about which they are asked, and as a result reduce the extent of under-reporting of incomes.

The implementation of these DI questions required substantial development of the computer scripts. Previous responses also had to be edited and prepared to be 'fed-forward'. A pilot study was carried out to check that all procedures were working and to obtain feedback on the reactions of respondents and interviewers before introducing DI in the BHPS.

The changes will have implications for data users. The standard BHPS variables will still be provided for the whole sample. Additional information will however be available to analysts, indicating how a variable for a particular respondent was collected, whether using DI or by asking the independent question.

1. Introduction

This paper describes the process of implementing dependent interviewing (DI) in wave 16 of the British Household Panel Survey (BHPS)¹. The paper documents the design and testing process for using DI questions to collect details of current employment, an annual labour market activity history, earnings and unearned income from pensions, benefits and other sources. The paper provides documentation for BHPS data users and outlines the implications of the changes made when using the data. The paper also provides information for survey practitioners and methodologists who may be considering implementing dependent interviewing on a longitudinal survey.

Section 2 outlines the motivations for introducing DI in the BHPS, briefly defining dependent interviewing before discussing why it might be used and how it has been applied in other contexts. This section includes a summary of results from an examination of different DI strategies which informed the application in the BHPS. Section 3 outlines the development and implementation of DI in wave 16 of the BHPS. The specific details of how DI is used in each section of the questionnaire is reviewed, and the DI pilot survey summarised together with the lessons learnt that informed the final fielded version of DI. Section 4 outlines the implications for data users flowing from the introduction of DI in the BHPS, including a discussion of anticipated effects on data quality and some notes on how the structure of the data available to users will be affected. Section 5 contains a summary and conclusion.

2. Motivation for introducing dependent interviewing on the BHPS

2.1. *What is dependent interviewing?*

Dependent interviewing is a method of designing questions in a longitudinal survey, whereby substantive information, available to the survey organisation *prior* to the interview, is used to tailor the wording and routing of questions to the respondent's situation or to enable within-interview edit checks. This differs from the usual *independent* interviewing, where panel respondents are asked about their current situation, and possibly changes since the previous interview, at each wave *without* reference to responses given in the past. This also differs from standard procedures of feeding forward identifying information (such as name, address, sex, date of birth) to locate eligible sample members, in that dependent interviewing uses information about *substantive* survey questions (such as health status or employment characteristics).

The prior information usually stems from responses to earlier interviews, but could also be from other sources of information available to the survey organisation. While the idea of using prior information is not new, DI has only become widespread with the use of computer assisted interviewing,

¹ For details of the BHPS design and conduct see <http://iser.essex.ac.uk/ulsc/bhps/>

which makes the feeding forward of prior information more manageable than in paper and pencil surveys (for a review of the history of DI, see Lynn et al. 2006).

Prior information can be incorporated in the questionnaire in different ways, with the main distinction being between reactive and proactive designs (Brown, Hale and Michaud 1998). With *reactive DI*, respondents are first asked an independent question, without reference to prior information. The computer script then compares the answer with the prior information and if there is an inconsistency, an edit check question is asked to verify the apparent change. This method is used to identify errors in the coding, keying or reporting of both the prior and current response. With *proactive DI*, respondents are reminded of the prior information as part of the question, before being asked about their current situation. Proactive DI can also be used to ask about change and if none has occurred, to route past follow-up questions to which the survey organisation already knows the responses from an earlier interview.

2.2. Why is dependent interviewing used?

Previous information can be used for different purposes: to reduce respondent (and interviewer) burden and improve survey processes, or to improve data quality by reducing errors that make responses inconsistent across waves (see, Jäckle 2006).

Respondents whose situation has not changed since previous interviews can find being asked the same questions at each successive wave repetitive. In the extreme, they may refuse to participate in future interviews, if they feel that the survey organisation is 'not listening' to them and they do not see the point of repeating their answers (Phillips et al. 2002). Proactive DI can be used to identify and route around redundant questions about situations which have not changed, in this way acknowledging responses given in the past. Previous information can, for example, be used to establish whether the respondent is in the same job as at the previous interview, and if so, to route around follow-up questions about the characteristics of this job. This reduces burden for the respondent (and interviewer) and can lead to savings in interview time, but can also lead to potentially substantial savings in coding time. Industry and occupation codes may, for example, be fed-forward from the previous wave and coding would then only be necessary for respondents who have changed jobs. Finally, personalising the questionnaire and providing memory support by reminding respondents of previous answers can contribute to improving the flow of the interview.

DI can also be used to reduce coding, keying and reporting errors. In panel data, errors in responses to each wave can lead to inconsistencies in responses across waves, and result in biases in estimates of change. For example, if respondents use different words to describe the same occupation at different interviews, they might be assigned different occupation codes across waves. This coding

variability leads to an overestimation of change, when responses to different waves are compared. DI can be used to verify if the respondent is still in the same job and performing the same tasks, and if so, the occupation code can be carried forward from a previous wave. This procedure reduces coding variability between waves and thereby improves estimates of change.

Inconsistencies across waves can also be due to keying errors by the interviewer. Such errors may occur, for example, if the interviewer enters or omits a zero in earnings amounts, or inadvertently selects the wrong answer category. In these cases, estimates of change based on comparing responses across waves will again be biased upwards. For these types of questions, the computer assisted interviewing programme can compare current responses with previous responses and trigger follow-up questions to verify apparent changes and catch keying errors.

The third source of errors is the respondent, who may omit events, misreport or misclassify, or misunderstand what type of information is requested. For example, respondents may forget to report sources of unearned income or unemployment spells experienced since the previous interview. Or respondents may describe their status inconsistently across waves, for example in one interview describing themselves as 'divorced' and subsequently as 'single/never married'. These inconsistencies in responses again lead to biases in estimates of change and are difficult for analysts to interpret. In this case, respondents can be reminded of previous responses, to aid their memory and also provide a boundary of the reference period for which they are asked to report. The previous responses may also help the respondent's understanding of the survey question, by providing examples of the type of information requested. More generally, DI can be used to ask directly about change, for example by asking whether the respondent is still working for employer *X*, instead of inferring change from differences in responses.

Finally, DI can also be used to reduce item non-response. Respondents who answer 'don't know' or 'refuse' a given item could be reminded of answers they gave in the previous interview. They could then be asked whether their previous answer is still correct.

2.3. Dependent interviewing designs

Questions using dependent interviewing can be designed in a variety of ways, depending on the nature of the item and the improvements sought. The main distinction is between reactive and proactive dependent interviewing (Brown, Hale and Michaud 1998). With reactive DI, prior information is used to carry out edit checks during the interview; with proactive DI, prior information is used to determine question wording and routing. For a full discussion of the different design options and their effects on data quality and survey processes, see Jäckle (2006).

Reactive edit checks based on prior information can be built in to either follow-up on item non-response or check consistency with previous information. For *non-response follow-ups*, respondents who answer 'don't know' or refuse are reminded of their report in the previous interview and asked whether this is still correct. *Corrective follow-ups* are designed to check consistency with previous reports and can either be prompted (1) *always*, for example to check consistency of verbatim answers with previous reports, (2) to clarify reports that are *inconsistent* with previous reports, or (3) *selectively*, if reports differ from previous reports beyond a defined threshold, for example if usual earnings for a standardised period differ by more than +/-10%. The respondent may also be asked to clarify reasons for the discrepancy and the explanation may be recorded either as verbatim text or as a pre-coded answer.

With proactive DI, respondents can be reminded of previous answers or asked questions they did not answer previously. Previous information can be used as a reminder (1) to aid the respondent's memory and provide a boundary before asking the standard independent question (*remind, continue*), (2) to ask respondents to check and confirm previously recorded answers (*remind, confirm*), or (3) explicitly to ask about changes (*remind, still*). '*Remind, still*' type questions are often combined with routing if circumstances have not changed (possibly with subsequent imputation of previous data), for example routing around questions about the characteristics of a job. '*Remind, confirm*' questions are usually either followed by the standard independent question (as are 'remind, continue' questions) or followed by questions about change (similar to 'remind, still' questions) and sometimes combined with routing.

2.4. Applications in other panel studies

DI is increasingly used, both by new panel studies set up with computer assisted interviewing from the outset, and by longer running panels which have converted from paper and pencil to computer assisted methods. Questions on *current employment* are, for example, asked with DI in the US Current Population Survey (CPS, Kostanich and Dippo 2002), the US Survey of Income and Program Participation (SIPP, Moore 2004) and the Canadian Survey of Labour and Income Dynamics (SLID, Hiltz and Cl  roux 2004a; 2004b). In these studies, respondents are reminded of employment characteristics reported at the previous wave (such as the company they worked for or their activities and duties) and asked whether these have changed. If no change has occurred, they are routed around redundant follow-up questions, such as questions about occupation and industry. These studies similarly ask questions about *labour market histories* since the previous interview using DI. Information about the respondent's labour market situation at the previous interview is fed-forward and the

respondent may or may not be asked to confirm this information, before being asked about activities since.

Questions about *labour earnings* are also frequently asked with DI. The SIPP and SLID, for example, use selective follow-up designs, where an edit check question is prompted if the current amount differs from the previous amount by more than 10%. The SLID also asks respondents to clarify reasons for the discrepancy and this information is later used for data editing. The SIPP additionally follows up 'don't know' and 'refused' answers, by reminding respondents of the amount reported in the previous interview and asking whether this still "sounds about right".

Questions about *unearned income* and *assets* are also frequently designed with DI. The SLID, for example, reactively follows up on inconsistent reports for questions on unemployment insurance, social assistance and workers' compensation (Dibbs et al. 1995). That is, if a respondent does not report an income source reported at the previous wave, a follow-up question is asked to check that this apparent move off the income source is correct. The SIPP uses proactive designs, where respondents are reminded of sources reported previously, before being asked about receipt in the current reference period (Burkhead and Coder 1985; Moore et al. 2004). As for earnings questions, the SIPP also follows up 'don't knows' and 'refusals' by reminding respondents of the amount reported previously.

DI is also applied to a multitude of other types of questions. Some examples include questions about whether the workplace is covered by a union or collective agreements (SLID); marital status, partnership histories, whether parents live in the household and (adopted) children (British Birth Cohort Studies); dating, cohabitation and marriage histories (National Longitudinal Survey of Youth, NLSY); highest educational qualifications (CPS, NLSY); disability preventing work (CPS); health (SIPP); height, breastfeeding, childcare arrangements (British Birth Cohort Studies); and housing and monthly rent (SIPP). Finally, the surveys listed as examples here are mostly studies where methodological work has been undertaken to document the effects of DI. There are many other panel studies, to which we have not referred, using DI methods.

2.5. A dependent interviewing experiment in the context of the BHPS

Although DI is increasingly used in panel studies, design decisions have mostly been based on intuition rather than evidence (Lynn et al. 2006). To inform decisions for the BHPS, an experimental study comparing independent interviewing (the standard BHPS questions) with proactive and reactive DI was carried out. Respondents were randomly allocated to one of the three groups. Each group received a different version of questions on current employment, earnings, labour market activity histories, unearned income sources and school-based qualifications, and the same standard BHPS questions for

other sections. In addition, we asked respondents for permission to obtain their records of benefit and tax credit receipt from the Department for Work and Pensions (for details, see Jäckle et al. 2004).

The study was carried out by following up the former UK European Community Household Panel (UK-ECHP) sample, which had been interviewed together with the BHPS sample since 1997 and for which funding expired in 2001. Computer assisted personal interviews were sought with all respondents to the final ECHP interview in spring 2003. The questionnaires were based on the 2002 BHPS questionnaires and full interviews were achieved with 1,033 respondents (89%). In this section, we summarize the main findings from the study, which shaped the design of DI in the BHPS. The experimental DI questions were similar to those now implemented in the BHPS and described in this paper. For full documentation of the experimental questions, see Jäckle (2006).

For questions on *current employment characteristics*, proactive DI reduced inconsistencies across waves (Lynn and Sala 2006). With independent interviewing, an implausibly high number of respondents, who were still in the same job as at the previous interview, appeared to have changed the characteristics of their employment. Around one-third of these respondents, for example, had different occupation and/or industry codes, even judging by the coarsest possible classification. Proactive DI reduced these inconsistencies, by identifying respondents in the same job and feeding forward their occupation and industry codes from the previous wave. Proactive DI further reduced inconsistencies in reports of the size of the workforce, employment status and managerial duties, although differences in the latter two were not significant. These findings correspond with findings from the SIPP (Hill 1994) and the CPS (Norwood and Tanur 1994; Polivka and Rothgeb 1993). Some evidence indicated that inconsistencies were most likely for respondents with more complex jobs, the characteristics of which are more difficult to describe, and that DI was especially effective at reducing inconsistencies in these cases. In addition, proactive DI reduced the number of items to be coded by two thirds. Reactive DI also reduced inconsistencies compared to independent interviewing, but less than proactive DI and the differences were not significant. Proactive DI therefore appeared to be the best strategy for implementation in the BHPS current employment questions.

For *labour market activity histories*, proactive DI improved the consistency of information about the respondent's activities *at the time* of the previous interview, with information from the subsequent interview about activities *since* the previous interview (Jäckle and Lynn in press). As a result, proactive DI reduced the number of apparent transitions between employment, unemployment and inactivity at the 'seam' between two reference periods. With independent interviewing, for example, 14.2% of all activity spells in progress at the previous interview appeared to have ended in the following month. When the activity history questions began by reminding respondents of their current activity at the previous interview, this was reduced to 8.5%. These results confirm findings from other studies of the

effect of DI on changes in employment (Murray et al. 1991) or occupation and industry (Hill 1994). Reactive DI, where respondents are queried about retrospective reports that do not match the previous wave reports did not appear suitable for the collection of activity histories: if the edit check reveals an error in the reported sequence of activities, then the entire sequence may actually be wrong and would have to be collected again. The answers to reactive edit checks did, however, reveal that most inconsistencies were due to respondents forgetting about spells, which they confirmed when these were presented to them. Finally, the fact that proactive DI respondents were not asked to report on their previous wave current activity again in the history, meant that industry and occupation coding for this section was reduced by 80%. Overall, proactive DI therefore seemed the more appropriate method of collecting activity histories in the BHPS.

For *unearned income sources*, DI reduced under-reporting, judging by a comparison of survey responses with administrative records (Lynn et al. 2004). Under-reporting was however not eliminated, since DI could only improve reporting for respondents who had reported receipt in the previous interview. Similar findings were made for reactive DI in the SLID (Dibbs et al. 1995). There was some evidence that under-reporting was more likely if receipt of a source had ceased early in the reference period, and DI was particularly successful at reminding respondents to report sources in such cases. Proactive and reactive DI had similar effects. In 50% of cases where reactive DI prompted a follow-up question, the respondents said that they had indeed forgotten to report the source. If the answers to the reactive follow-up questions are not considered, then the response distributions for the independent and reactive DI groups were comparable. This suggested that incorporating reactive DI in the BHPS would be a good strategy, since the reductions of under-reporting were comparable with proactive DI. Cross-wave comparability could however be maintained, since the standard independent BHPS question would still be asked and analysts could choose whether or not to incorporate the additional information from the reactive DI edit check questions.

For questions on *earnings from employment*, reactive DI helped somewhat to catch keying errors. Roughly half of the respondents who reported earnings in both the current and previous wave reported amounts that differed by more than 10%. All but one however confirmed the change. In the SLID, 8.3% of respondents reported earnings that differed by more than 10% and two thirds of these confirmed that the change was real (Hale and Michaud 1995). Proactive DI did not appear suitable for this type of question, since it would be too easy for respondents to satisfice and simply confirm the amount, which would then lead to an under-estimation of change. Reactive DI therefore seemed most appropriate for BHPS questions on earnings amounts.

For questions about *school-based qualifications* it was very difficult to judge the effects of DI, since very few sample members received new qualifications in the interval since the previous interview.

With proactive DI, 6% of respondents said that the records of their qualifications were not correct, but only in a fifth of those cases did the correction affect the derived measure of highest qualification. Respondents who had not been interviewed in one or more of the waves of the panel were more likely to have incorrect records. Wave non-response did, however, not explain all cases of erroneous records. Reactive DI did not appear suitable to check the accuracy of highest qualifications, since the edit check was only asked of the few respondents who reported a new qualification. For the time being, it was decided not to redesign the questions about highest qualifications in the BHPS.

3. Development and Implementation at Wave 16

Dependent interviewing was implemented at wave 16 of the BHPS. Every effort was made to maintain longitudinal comparability in the design of items, so that measures are as comparable as possible with data from prior waves. DI was introduced into three sections of the individual questionnaire: Current Employment, Employment History; and Finance. A small number of respondents who refuse to be interviewed face-to-face are offered a short telephone interview, which incorporated DI for the same items. This section discusses, in turn, the DI implementation strategy in each questionnaire section and the comparability of the resulting data to previous waves.

In discussing the application of DI throughout the questionnaire, several concepts must be defined. First, the “reference period” on the BHPS has always been the period beginning September 1st of the year prior to the year of fieldwork and ending with the current interview. This is the period about which respondents are generally asked to report. Since interviews take place between September 1st and December (with a few trailing on into the next year), using a fixed start date means that some overlap occurs between reporting periods from different interviews. One of the changes introduced with DI, is that the last interview date is used as the start of the reference period, so that the overlap which has always been present in the BHPS will no longer exist for respondents receiving DI questions.

The second concept is “fed-forward data”. This refers to a respondent’s data from a previous wave – either the wave immediately before the current wave or even earlier than that. For DI, “fed-forward data” represents the information that can be used for text-fills in the question wording, or to determine the routing of respondents through or around certain sections of the questionnaire. The application of DI in the BHPS uses “fed-forward data” to both phrase questions and to route respondents in specific ways.

3.1. DI in the Current Employment Section

DI was used for two sets of items in the current employment section: to collect information about the characteristics of a job and earnings information. At each wave, the BHPS questionnaire contains a set

of seven questions ascertaining the basic characteristics of a respondent's current employment situation. Prior to the advent of DI, all respondents were asked the same set of questions, regardless of whether their job had changed over the prior year. DI is used here, to facilitate the response task by reminding respondents of previous answers, to improve the flow of questions and reduce the interviewer load, as verbatim responses do not need to be entered for all cases. As a result, DI should improve data quality by reducing the likelihood of spurious change in employment characteristics, caused by differing responses or coding of verbatim responses.

[INSERT FIGURE 1a HERE]

Figure 1a contains a schematic of the logic behind the application of DI to gather data on current employment characteristics. Starting in the upper left, we check whether data is available from the last wave for use in the specific item. Data for DI use can be unavailable for three reasons: (a) the respondent has never been interviewed; (b) the respondent was interviewed last wave but was not in work; or (c) the respondent was interviewed and was in work, but the response given at the previous wave was unsuitable for DI use. The last of these reasons might arise because the verbatim response was unintelligible or because the respondent refused a closed response question or answered "don't know". If data are available for DI use, then a Proactive Dependent Interviewing (PDI) question is put to respondents. Respondents confirming that there have been no changes to the fed-forward data go directly to the next DI question series. Respondents negating the PDI question, indicating that some aspect of their employment situation has changed, are then followed up with the Independent version of the question (noted as INDI in Figure 1a) before routing to the next DI question set.

Respondents with no fed-forward data available for DI are asked the standard set of INDI questions. Those who were in employment at the prior interview, but for whom no fed-forward data were available, are followed-up with a Reactive Dependent Interviewing (RDI) question, to check whether the information just given represents a change over the prior wave or not. After this reactive check, respondents go to the next DI question series. Respondents who have never been interviewed, or were not in employment at the previous wave, go to the next DI question series without an RDI check.

This logic is repeated for each of seven items: occupation, business or industry, employer name or trading name; whether an employee or self-employed. For employees, DI is also used for whether they have managerial responsibilities, the industrial sector of the employer and the size of the employer's workforce.

The exact question routing for these items is contained in Appendix A1. By way of example, we discuss in detail the routing through the first item to which DI is applied – the respondent's occupation. Beginning at E5P, respondents with prior employment data received the PDI question about their job title and the work they do:

"Last time we interviewed you, on <INTDATE>, you said your main job was <OCCUP>. Are you still in that same occupation as your main job?" (Yes/No/Don't Know")

The verbatim description given by the respondent in the prior interview is inserted at <OCCUP>, while the previous interview date is inserted at <INTDATE>. A respondent might be presented with a question that reads: "Last time we interviewed you, on 16 October 2005, you said your main job was A TILE FITTER – INSTALLING TILES IN BATHROOMS, KITCHENS. Are you still in that same occupation as your main job?" If the answer to this question is "Yes", the respondent moves directly to the collection of questions that ascertains business or industry. If no valid verbatim response was fed-forward, or if the answer to the PDI question was "No", indicating a change in occupation, respondents are asked the INDI question:

"What was your (main) job last week? Please tell me the exact job title and describe fully the sort of work you do."

The interviewer would then enter the job title and whatever the respondent said as a description of their work – probing when needed for sufficient detail for coding. Respondents not previously interviewed or interviewed but not in work at the prior wave would progress to the questions on business or industry.

Respondents who were in employment at the prior wave, but had not given a useable description of their occupation, would at this point receive a reactive check. The follow-up question asked:

"Can I just check, is that the same occupation that you had last time we interviewed you, on <INTDATE>?"

Whether or not the respondent is in the same job as at the previous interview is used for routing later in the questionnaire. Respondents with the same occupation and working for the same organisation are flagged as having the "same job" as previously. Respondents in the "same job" who are employees, as opposed to self-employed, continue with the DI items. Respondents with a different occupation and/or a different employer are flagged as not being in the "same job". In this situation, presenting the prior data for confirmation makes little sense and so INDI versions of items ascertaining managerial duties, industrial sector and employer size were administered instead.

Respondents who are still in the same job are then asked whether they have experienced a promotion and whether they have been working continuously in this job since the previous interview date. Respondents continuously in the same job are later routed around the job history section of the

questionnaire. This differs from previous waves, where respondents who had experienced a promotion in the same job reported on this in the annual employment history section.

The Current Employment section includes a second area where DI is employed. A small proportion of respondents report quite large drops or increases in their incomes between any two waves. Although some of these large changes may result from valid job changes, including promotions and large bonuses, some will be due to reporting error on the part of the respondent, data entry error by the interviewer, or some other error during data processing, rather than representing true income mobility. These types of errors are difficult to correct during post-interview editing without information about what the 'true' values should be. To ensure that large increases or decreases in earnings are real, we use DI to create a within-interview edit check.

[INSERT FIGURE 1b HERE]

Figure 1b contains a logical schematic of the routing through the DI income check (Appendix A2 contains the exact question wording). Beginning in the upper left hand corner, the script evaluates whether all the relevant variables are available for the respondent. The check is conducted using the net hourly or gross hourly pay figures. The script therefore requires valid information on the hours worked per week, summing both normal work hours plus any typical overtime. It also requires the amount of pay and the pay period. These three pieces of information must also be available in the "fed-forward" data from the previous wave. The check gives precedence to net pay over gross pay. Whichever is used, the script evaluates the stated hourly pay in the present wave against the stated hourly pay in the previous wave. The edit check question is issued under three conditions: (1) pay has dropped by more than 30% since the previous wave; (2) pay has increased by more than 40% for respondents in the same job as at the previous wave; or (3) pay has increased by more than 60% for respondents in a different or new job since the previous wave. A careful examination of previous waves of BHPS data suggested that with these bounds approximately 10% of employees would be asked the edit check question.

The income check question required some sophisticated CAPI programming. The DI question for net pay comparison reads as follows, with the appropriate text-fills depending on whether pay had increased or decreased. The gross pay question is comparable:

"So your net pay has gone <UP/DOWN> since last time we interviewed you, from <CONVERTED AMOUNT> per <E23PERIOD> for a <WTOTHR> hour work week (including overtime), to <E22AMT> per <E23PERIOD>, is that correct?" (Yes / No / Don't Know or Other)

A number of pieces of information are filled into this question. First, the direction of change is either UP or DOWN. Since the respondent might have reported their previous income in units different from the current wave, a number of conversions may have been necessary to arrive at a suitable question phrasing. At the prior wave, the respondent may have reported their income in months – e.g., £1,800 per month – whereas in the current interview they may have reported income in years – e.g., £33,350 per year. The script converts the amount stated in the previous wave into a comparable amount covering the period used in the current wave. So with our example, £1,800 per month would be converted into £21,600 per year. This latter figure is presented to respondents, to simplify their task. This example would yield a question reading “So your net pay has gone UP since last time we interviewed you, from £21,600 per YEAR for a 38 hour work week (including overtime), to £33,350 per YEAR, is that correct?”

As the schematic indicates, respondents answering that the pay change was correct would pass to the next question. All other respondents were followed-up with a question asking for a verbatim explanation of the change. In some instances the respondent may have received a big promotion, but more often we expect the check to be triggered by data entry error in the previous or current wave, such as misreporting the pay period as months rather than years.

In sum, the DI application here involves recalculating figures provided in the previous wave and comparing them to the current wave responses to route respondents correctly. Additionally, DI is used to phrase the question correctly. Ultimately, this DI application is designed to enhance data quality by reducing the number of outliers that can be difficult to deal with during analysis.

3.2. DI in the Employment History Section

Employment history data in the BHPS are collected by asking respondents about spells of employment and being out of the labour force, and the dates at which changes in activities occurred. In prior waves, the history began with the respondent's current situation and worked backwards in time until reaching a spell that had started before 1st September of the previous year. This questioning strategy gathered information on some spells twice. The period between the start of the spell in progress on 1st September and the date of interview in that same year, was 1) the most recent part of the reference period for the interview in that year, and 2) the most distant part of the reference period in the following interview. This design inevitably produced some inconsistencies in the reporting of labour market status and the dating of spells in the overlap period. To eliminate double reporting of spells and inconsistencies in reporting between waves and to facilitate respondent recall in a more natural narrative style, we used DI to anchor respondents at their previous interview date and allow them to report on spells in or out of employment chronologically until reaching the current status. The DI

strategy, in short, focuses on improving data quality by reducing respondent recall burden, as well as enhancing the efficiency of data collection. Figure 2a contains a schematic depicting the logic of how respondents enter the employment history while Figure 2b details the logic of the employment history itself. Appendix A3 contains the questionnaire specification of the routing.

[INSERT FIGURE 2a HERE]

The upper left hand decision box in Figure 2a highlights three cases which skip directly past the annual employment history. The first group to skip the history are respondents interviewed in the prior wave who report still being in the same job. These are respondents who, in the current employment section, affirmed that they have continuously been in the same occupation with the same employer since the prior wave. The second group to skip the history are respondents who are retired from paid work, who report no current paid work during the past week, and for whom we have a valid retirement date collected at a previous wave. The third group to skip the history are any new respondents or respondents not interviewed in the prior two waves, but who are currently in work with a start of their job before the reference year cut-off, i.e. 1st of September in the prior year. To summarise, any respondent for whom we know that they have not experienced any change of status during the reference year, skips past the employment history section.

Any respondent not meeting one of the initial three conditions is evaluated for whether they are out of the labour market or not. Those who are currently in paid employment are routed into the annual employment history. This group includes respondents who have started working or changed jobs since the previous wave. Any respondent not in the labour market, for example students, on maternity leave, or government training scheme, are asked for the start date of their current status. If the non-employment spell started before the 1st September of the previous year *or* the respondent's own previous interview date, whichever is more recent, they skip past the employment history, as we know they have been continuously in that status throughout the period. Any respondent whose current non-employment status began since the September 1st or the date of their last interview (whichever applies), passes directly into the employment history section.

[INSERT FIGURE 2b HERE]

Figure 2b contains a logical schematic of the employment history protocol itself. The exact questions asked are included in Appendix A3. This schematic does not include the initial set of questions at the start of the history section which (a) confirm the employment status at the time of the

previous interview or the beginning of the reference year for all respondents and (b) obtain the date this activity ended and their next labour market activity began. The protocol gathering the history begins by asking respondents what they did after the activity reported at the previous interview or at the start of the reference year. This question is noted on the schematic in Figure 2b as “(Next) Spell Type?”, while the exact question wording depends on whether this is the initial pass through the protocol or a subsequent pass through the protocol. The activity could be either *in* the labour market or *out* of the labour market, but in either case the respondent is asked for the date they ended this activity. If the activity is the current activity, they skip directly to any remaining questions in the history section (e.g. whether they have ever had a paid job for those never interviewed before). If the activity is employment and *not* the respondent's current status, then the characteristics of the job are gathered before returning to the beginning of the protocol. If the activity is not employment and not the respondent's current status, the respondent returns directly to the beginning of the protocol. Respondents then loop through the protocol until the current status is reached and the history is complete. Interviewers are then presented with a screen containing a summary of the history, including the dates, in chronological order. This summary screen is read to respondents who then have an opportunity to correct any missing spells.

The application of DI, here, is two-fold. First, routing past the employment history protocol is accomplished by comparing current wave responses to data held for respondents from previous interviews. And second, for those respondents entering the employment history, DI is used to identify a point at which to start the chronological reporting of labour market activities. In short, DI is used to anchor the history at a specific point in time with a specific activity which the respondent reported at a prior wave if such information is available.

3.3. DI in the Finance Section

Dependent interviewing features in two areas of the Household Finance section: sources of unearned income and private personal pensions. Appendix A4 includes the initial series of questions from this section for reference and Appendix 5 includes the series of questions obtaining information about private personal pensions. We discuss the application of DI in each area of this section separately.

The finance section begins by asking respondents to view a series of showcards listing sources from which they might have received income during the reference period. All of the sources are “unearned” in that they are not received as remuneration from paid employment. The showcards list 35 different sources with the option to include any other sources. Respondents can report on multiple receipt of income from a single source, e.g., receipt of rent from multiple properties. The questionnaire first enumerates all sources of income received since 1st September of the previous year and then

gathers specific pieces of data about each mentioned source. The cognitive task of remembering and identifying all the sources of unearned income can be quite challenging for many respondents, particularly older respondents or those with several different sources of unearned income. DI was introduced to alleviate some of the respondent burden in recall and to reduce under-reporting of sources.

Once the responses to the showcards listing types of incomes are entered, the script computes a series of internal consistency checks that ascertain whether all potential sources are enumerated, given what is known about the respondent's characteristics or situation. Respondents aged above the state pension age who have not reported receiving the state retirement pension or not mentioned pension credits, are asked whether they have received either. The same type of consistency checks are applied to Disability Benefits, Income Support or Job Seekers' Allowance, and Child Benefit. Respondents receiving certain state benefits but not reporting Housing Benefit are also asked if they receive this – since Housing Benefit is often received jointly with other state benefits.

Following the consistency checks, a series of reactive DI checks are triggered, if the currently enumerated sources do not include sources mentioned in the prior three waves of data collection:

“Can I just check, according to our records you have in the past received <SOURCE1 – SOURCE12>. Have you received <SOURCE1 – SOURCE12> at any time since <INTDATE>?” (Yes/No)

Up to 12 sources listed by the respondent in the prior three waves are fed-forward for this question and in-filled as <SOURCE1 – SOURCE12>. The prior interview date is in-filled into the area noted as <INTDATE>. By way of example, a respondent might receive the question: “Can I just check, according to our records you have in the past received A PENSION FROM A PREVIOUS EMPLOYER. Have you received A PENSION FROM A PREVIOUS EMPLOYER at any time since 15 November 2005?” This question is repeated for each source a respondent reported in the any of the prior three waves, but did not report in the current wave.

Follow-up questions are then asked about each enumerated unearned income source, including the timing of receipt, amounts, and the identity of the beneficiaries in the household. Once information about all enumerated sources is obtained, interviewers are presented with a summary screen reporting all sources and the amounts received most recently. This information is read back to respondents who are then given the opportunity to correct any missing or redundant sources.

The Household Finance section contains a second application of dependent interviewing. DI is used to ascertain the date at which a respondent started payment on a private personal pension. Each wave, respondents are asked if they contribute to a private personal pension and if so, when they first took out the pension to which they contribute. The year is important because private personal pensions

started after July 1988 are eligible for contributions from the Department for Work and Pensions (DWP) under certain conditions. The timing is also of academic and practical import for many researchers. Empirical investigations, as well as interviewer feedback from piloting DI, suggested that reminding respondents of previous reports would be beneficial for this item. DI is therefore used here, to remind respondents of the year they took out their pension and to subsequently route respondents to the correct follow-up questions about contributions.

3.4. CAPI Scripting and Testing

The BHPS instrument is administered using computer assisted personal interviewing (CAPI). Fieldwork is conducted by two survey organisations – one in Great Britain and another in Northern Ireland. The survey organisations are responsible for preparing the CAPI script they use and each maintains dedicated interviewers skilled in the use of specific interviewing software. They do not share the same CAPI software and therefore parallel versions of the instrument were prepared in '*In2itive*' and '*Blaise*'.

Scripting the DI questions was an iterative process with both survey organisations. Versions of the script were completed and passed to staff at ISER for testing and evaluation. Comments from ISER staff were fed-back to script writers at both agencies. Script preparation for main-stage interviewing required approximately 3-1/2 months of continuous work. A slightly shorter amount of time was used to prepare and test the scripts used to pilot DI.

Rolling out DI into the BHPS instrument has occasioned highly complex questionnaire routing for various respondents. Provisions in the script must also accommodate different types of missing forward data. Script checking occurred at multiple levels. ISER staff developed a set of test cases, the characteristics of which allowed staff to evaluate all possible routings through the instrument. The initial month of script preparation largely focused on obtaining accurate routing for all potential respondents. General routing checks continued to a lesser degree through the remaining script preparation, while accurate routing in specific areas of the instrument proved particularly difficult to programme including the earnings check, employment start date checks, and employment history and unearned income sources summary screens. A second layer of checking focused on the presentation of the questionnaire items in the script for interviewers – including phrasing and grammar, use of colour, font size and type, and screen layout.

3.5. Pilot survey

BHPS fieldwork starts on September 1st of each year. A Pilot survey to test the implementation of DI was carried out over a three week period in March 2006. The issued sample comprised 256 households selected from the sample used for the Improving Survey Measurement of Income and Employment

(ISMIE) project. In order to test the questionnaire, data from a previous interview was required and as these respondents had been interviewed in 2003, we were able to use their information from those interviews. Although the data fed-forward were three years old rather than one year, as would be the case for the BHPS annual interview, having a longer gap between interviews meant that on a relatively small sample there was a better chance of picking up changes over time, which would allow all sections of the questionnaire to be tested. All of the selected households had co-operated in the ISMIE survey and had been part of the UK-ECHP since 1994, and so had been interviewed several times previously in most cases. They were chosen by location alone, i.e. whether there was an interviewer available in that area to carry out the interviews. The sample is therefore not representative of the GB population in any respect. As the main aim of the pilot was to test the implementation of the CAPI script, rather than produce accurate estimates of any kind, this was not critical. In total 166 households were interviewed, a response rate of 66% of eligible households. Interviews were achieved with 260 individuals, a sample size that was large enough to provide a variety of different types of cases and circumstances to test most of the possible routes through the questionnaire.

Twenty-five interviewers worked on the Pilot survey, all of whom were regular interviewers on the BHPS. Interviewers attended a half day face-to-face briefing which covered where they should expect to find DI questions in the questionnaire, how the questions were structured, and what information was being fed-forward from the last interview. All interviewers were asked to complete a debriefing form after they had finished all of their households, as well as completing interviewer observations at the end of each interview about how the respondent had reacted to the DI questions. Twenty-three interviewers completed and returned the debriefing form (see Appendix B for the debriefing form and B1 for the interviewer observations included at wave 16). A debriefing session attended by ten interviewers was carried out following the Pilot fieldwork, to hear first hand how respondents reacted to the DI questions and whether the interviewers experienced any problems in administering the questionnaire. The debriefing session was tape recorded and transcribed and interviewers also tape recorded their interviews for use in more detailed analysis of the effect of DI on respondents, interviewers and the interview situation².

Overall, interviewers reacted positively to the introduction of DI, making comments such as:

'It made the interview smoother/easier to conduct and quicker'

'Smoother, faster, flowed better, just taken as another question'

² An ESRC funded project 'The Impact of Dependent Interviewing on Interview Dynamics' is currently underway led by SC Noah Uhrig and Emanuela Sala at ISER.

'Having all the information there made the interview go more smoothly. The respondent did not have to think too hard about the details. In cases where the job history was different it appeared to be less complicated to administer.'

'For most respondents there was little or no change, so reading out the info just needed confirmation. One respondent was quite pleased to realise how much her job prospects had improved.'

Respondents also seemed pleased with the introduction of DI and *'...were impressed that we had listened to them for a change'* so that they did not have to repeat information they had reported previously.

'Respondents were very positive about their prior information being used, confirming whether this information was still correct and updating any changes. In previous waves respondents have often commented that hadn't we (already) recorded the previous information regarding the job history etc.'

Given the three year gap between interviews, DI also seemed to help with recall for some respondents as it *'...jogged respondents' memory'*. As one interviewer said:

'Elderly respondents cannot always recall details of benefits. The 'reminders' improve the accuracy of the information in these cases. All my respondents considered that access to past information was beneficial'.

There was some indication that having the DI information was particularly important where people had a complicated history or lengthy job title or description, where they would be more likely to report it differently from one year to the next. Even though respondents were pleased to be presented with previous information there was no evidence of widespread satisficing, i.e. agreeing with fed-forward information, regardless of whether this was still the correct response. Interviewers reported that respondents were diligent about reporting any changes even if it meant answering additional questions. Interviewers also felt that respondents provided information that was more accurate, as they had the previous information to compare against their current situation.

On the debriefing questionnaire, 32% (7) of interviewers said that they thought respondent co-operation was improved by DI, 9% (2) said it sometimes improved and sometimes impaired co-operation, while over half, 59% (13) said that DI had no affect of respondent co-operation at all. Interviewers also said that the co-operation of respondents who had been interviewed by a different interviewer in 2003 was not affected by using DI. Respondents did not appear to have any problems about confidentiality even when a new interviewer presented their previous responses to them. This may be due to the fact that these respondents have been part of a panel study for many years, and so have built a level of trust in the survey. As one interviewer put it:

'I found no problem with the question of confidentiality as we have gained the respondents' confidence over the years'.

It should also be noted that DI questions were not used in proxy interviews, thereby reducing potential confidentiality problems that may arise if information given by one respondent were fed-forward to someone else at the next wave. Interviewers reported no major problems with the CAPI script and the questionnaire flowed well. On the debriefing questionnaire 52% (12) of interviewers said that the flow was improved, one interviewer said it sometimes improved and sometimes impaired the flow, and 44% (10) said DI had no impact on the flow of the interview. When asked how easy or difficult it was to administer the questions that used DI, 65% (15) of interviewers said that it was easy, two interviewers (9%) said it was sometimes easy and sometimes difficult and 26% (6) said DI made no difference to how easy it was to administer the questions.

For the current employment and annual employment history sections interviewers were asked to compare DI with independent questioning from their own perspective and their perception of respondents' reactions (Table 1). (Recall that the respondents for whom no fed-forward information was available for a given item were asked the independent question.) For both the current employment and employment history sections the majority of interviewers said that having the text fill made it easier to administer the questions and also easier for the respondent to answer the questions. This seems to be slightly more the case for the interviewer than for the respondents. Nonetheless, just under one third of interviewers said that they thought there was no difference between DI and independent interviewing in terms of the ease of asking or responding to the questions.

Table 1 Ease of asking/responding using DI

	Current employment		Job History	
	For Interviewer	For Respondent	For Interviewer	For Respondent
DI easier	65% (13)	62% (13)	60% (13)	59% (13)
INDI easier	5% (1)	9% (2)	9% (2)	9% (2)
No different	30% (6)	29% (6)	31% (6)	31% (7)

Notes: Missing values excluded. Col % (N in brackets).

On the debriefing questionnaire, 52% (12) of interviewers said they thought the interview was shorter due to DI, one interviewer (4%) said that it made it longer, 17% (4) said it varied and 29% (6) said it made no difference to the length. When assessing the Pilot data, the actual length of sections was not reduced significantly. However, the perception of shorter length due to DI may be positive for respondents and interviewers, if they feel the overall burden of the interview is reduced. Comments by

the interviewers suggest that for the DI questions where nothing had changed, it was quicker and shorter as they only had to confirm the information rather than re-entering verbatim responses.

3.6. Revisions for Wave 16 Main-stage

As a result of the Pilot and interviewer comments on the debriefing form and at the debriefing session, some minor changes were made for the wave 16 main-stage questionnaire. In the current employment section these were changes to reduce the repetitiveness of the question wording where nothing had changed, adjusting the current occupation question wording to allow for cases where the fed-forward occupation had subsequently become a secondary job rather than the main job, and revision of the earnings levels check. In the employment history section the revisions included streamlining the checks at the beginning of the section to ensure that those continuously retired since the last interview skipped the employment history and rewording of some questions within the history to clarify their meaning. In the finance section there were no DI related problems with the reactive checks for unearned income sources, apart from some recall difficulties when prompted about payments received three years ago, something which should not apply with the annual BHPS interview. Interviewers were keen to see DI being used in other areas of the questionnaire and as a result the date private pensions were taken out was added to the items using DI at wave 16.

3.7. Wave 16 briefings and fieldwork

The wave 16 main-stage briefings followed the normal pattern used each year on the BHPS. Any interviewers who had worked on the survey before received a one day face-to-face briefing and interviewers new to the survey received a two day briefing. In addition to covering standard fieldwork procedures and other changes to the content of the questionnaire, interviewers were briefed on DI and taken through dummy interviews to show them where in the questionnaire the DI items appeared and how they would look on screen. At the time of writing, the wave 16 fieldwork is nearing completion with progress reports showing no obvious response problems and response rates on a par with previous waves of BHPS (95 - 96% of all previous wave responders being interviewed). Interviewers have not reported any major problems using DI in the field and many have been enthusiastic at how well it is received by respondents. Nonetheless, some concerns about confidentiality and whether or not this has the potential to affect future response remain and the wave 16 data will be examined closely once they become available³.

³ During the wave 16 fieldwork one adverse comment was received from the more than 12,000 people interviewed. Where respondents appear to be concerned about DI we will ensure that their data are not fed-forward at future waves.

3.8. Technical issues

The introduction of DI posed a number of technical challenges to implement successfully. The BHPS has built up standardised procedures for feeding forward the issued sample data at each wave of the survey, but this information is primarily related to identifying sample addresses and individuals, e.g. address details, unique person identifier, name, sex, date of birth, previous interview outcome, and sample membership status, rather than substantive information collected during the interview. The DI specification required a range of additional variables to be fed-forward, including the last interview date and other relevant dates, verbatim responses (e.g. occupational descriptions), amounts (e.g. earnings at last interview), and variables where the text fill would reflect the coded response given at the last interview (e.g. an employee at the previous interview would have a coded value of '1' but the text fill would be the label 'employee'). In addition, some variables needed to be constructed from more than one response at the previous wave (e.g. amount paid gross or net) and there were a set of variables which the CAPI script would need to generate during the interview (e.g. whether or not in same job as at last interview and calculation of whether changes in gross and net pay were outside the specified bounds). Appendix C contains the list of variables fed-forward for DI at wave16 together with variables that needed to be created during the CAPI interview.

The BHPS feed forward data includes both household level data, such as addresses, and individual level data. For the purposes of DI, the additional required variables were added to the existing fed-forward data file, so that each individual had all of their standard data plus the DI variables. In this way, the CAPI script could use the fed-forward sample file including the DI variables during the interview. The process was complicated in that not all respondents had DI variables to be fed-forward and some had DI variables which did not apply to them. For example, those who were not in paid employment at the last interview had no occupation information fed-forward, so flag variables to show whether or not an item had a valid value were needed on the file. The feed forward data file therefore contained variables which did not apply to some respondents and the CAPI script had to cater for all possibilities and categories of respondents. Decisions on how to handle partial or missing data also had to be made, for example where a date collected at the previous wave was incomplete. To facilitate the feed forward process, a database containing all the required DI variables was constructed for the whole sample and the variables attached to the sample person (keyed on the unique personal identifier, PID) as part of the production of the fed-forward sample files.

All of the verbatim responses including occupational description, industry description and employer name underwent an editing process to ensure that the descriptions were readable, to correct spelling errors and where necessary to shorten the description. For example, if at the last interview a respondent had reported their job title plus a lengthy job description of the tasks they actually did in

their job, this was edited to include the job title and the key feature of their job, in order to make the description readable within the question. The editing of all responses was a non-trivial task as all 9,500 respondents who were in employment at wave 15 needed to have their responses checked, a total of some 28,500 verbatim responses. The editing at subsequent waves should be significantly reduced, as only those responses where new information has been entered will need to be checked. The database for feeding forward the DI variables will need further development to handle the year on year turn-around of these items efficiently.

The other critical technical element of implementing DI was specifying what data would be required in the data output from the CAPI script. For example, as occupational descriptions which remained unchanged were not collected during the interview itself but simply confirmed, the CAPI output needed to be structured so that the description was picked up and output together with cases where a job change had occurred. In this way all cases would have a valid description on the current wave's data that could be fed-forward at the following wave. Conditional checks which were implemented in the CAPI script were also output as variables, so that during post field checking these could be used to check that the expected data for each case was present and to enable the setting of missing and inapplicable values⁴. The implementation of DI was therefore not only a questionnaire design and CAPI scripting issue, but involved a range of developments to existing data processing and data management systems.

4. Implications for data users

4.1. Data quality improvements

The use of edit checks to compare earnings with previous wave reports should reduce the number of keying errors that would lead to unusually large changes in earnings. Although such errors are relatively infrequent, this will reduce the number of outliers that could potentially distort analyses of income dynamics. Similarly, the edit checks for unearned income sources will reduce the under-reporting of incomes. This will reduce downward bias in estimated prevalence of the receipt of particular sources and is also likely to improve estimated total individual and household incomes.

Reminding respondents of employment characteristics reported at the previous wave should increase cross-wave consistency. This will reduce biases in the analysis of labour market dynamics, by reducing the overestimation of wave-on-wave changes in occupation and industry, as well as managerial duties and size of the workplace. Reminding respondents of their labour market activity at the time of the previous interview, as an introduction to asking them about changes since, should also

⁴ On the BHPS missing values are set to -9 and questions which are inapplicable for a given respondent are given a value of -8.

improve the consistency of retrospective reports. This will improve estimates of monthly changes in labour market activities and reduce the concentration of transitions at the 'seam' between two reference periods. The reduction of seam bias is also likely to reduce attenuation bias in duration models, by restoring relationships with factors expected to be related to spell length in the absence of inconsistencies across waves which affect estimated spell durations (Hill 1994).

Although we anticipate that DI is likely to improve estimates of change, it may not impact on other types of estimates. Measures of cumulative experience in different labour market states, for example, do not appear to be altered by DI (Jäckle and Lynn in press). It remains to be seen, however, whether this is an artefact of the short window of observation in the study, or whether this conclusion holds when DI is used in successive interviews. Finally, although DI improves the *reporting* of unearned income sources, initial evidence suggests that it does not improve the *dating* of receipt. As a result, DI may actually exacerbate over-estimations of spell durations, especially for spells that are shorter than the length of the 12 month reference period. This is likely to be because DI encourages respondents to report short spells they would otherwise forget. It does not, however, reduce the tendency respondents have of saying that they received the income source during 'all months' of the reference period.

4.2. New variables on the BHPS user database

One of the implications of the introduction of dependent interviewing for users is how DI will be represented on the BHPS User Database. To help users see where and how DI was used in the interview, variables from the DI questions will be included in addition to the standard variables on the BHPS data files. Two main principles will be employed. The first is that for all standard variables carried on the BHPS, these will continue to be provided for the whole sample, even if some cases were collected via the DI route and some through an independent question route. This would apply to the main occupational variables, for example, where a DI respondent may have confirmed that they were in the same occupation and had their occupational code carried forward and other respondents, with a change of occupation or who were not interviewed at the previous wave, will have had their occupation coded at the current wave. The implication is that all those in paid employment will have a value on the occupational code variable, no matter how this was collected.

The second principle is that wherever the DI questions could be informative to data analysts, additional variables will be included on the database so that users can see how the data were collected and which route was followed by any given respondent. In the case of the current employment section, variables including the responses to the DI questions will be included so that users can see who confirmed they were in the same occupation, who said they were not in the same occupation and had

new information collected and coded, and who had no fed-forward data and were asked the independent question.

The inclusion of information on how the data were collected may be of particular interest in the section collecting information on pensions, benefits, and other non-employment sources of income. The RDI strategy used in this section will enable users to separate out which data were collected in the usual sequence and format and which data were collected as a result of the reactive prompts about sources reported at previous interviews. For analysts who may be concerned about longitudinal comparability of the data, having the additional DI variables available will provide users with a choice of data to use, i.e. in a comparable format to earlier BHPS waves or including the additional data collected as a result of the RDI checks.

In addition, some variables from the fed-forward data will need to be included on the database, so that analysts are able to construct histories and date events accurately. For example, many of the DI questions use the date of last interview as the reference point, so this will be a variable that users will need to have available. This will be particularly important for the annual employment history.

5. *Summary and conclusions*

In summary, the development work carried out on ISMIE and the DI Pilot survey prior to the introduction of DI on the BHPS gives confidence that DI will, overall, improve data quality for certain items. DI should lessen both the potential for interviewer error and respondent error, improvements which in combination should produce more accurate data. In particular, we anticipate that the seam effects typically observed will be reduced through the use of DI and the bounding of respondent recall to the date of last interview. We also expect that the interviewing task will be easier, with DI improving the flow of the interview, reducing the repetitiveness of some questioning for respondents and as a result reducing respondent burden.

The design of the DI questions was complicated by the need to maintain longitudinal comparability in the context of the existing panel survey and the specification and scripting of the CAPI instruments was a non-trivial task. Thorough testing of all potential routes and combinations of data was problematic and was a time consuming process requiring much detailed checking work. There were also significant technical challenges in feeding forward the DI data given the short turn-around time between fieldwork periods in the annual cycle of the BHPS. This should become easier at subsequent waves as systems are put in place, but the initial set-up to incorporate DI mid-way during the panel required significant modifications of current data processing systems.

The remaining questions relate to assessing the wave 16 data once it becomes available to a) establish whether DI has improved data quality for the items on which it was implemented; b) identify

any unanticipated effects due to the introduction of DI; and c) to reach informed decisions about whether more extensive use of DI should be considered in the future.

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Figure 1a Logical Schematic of DI Questions on Employment Characteristics

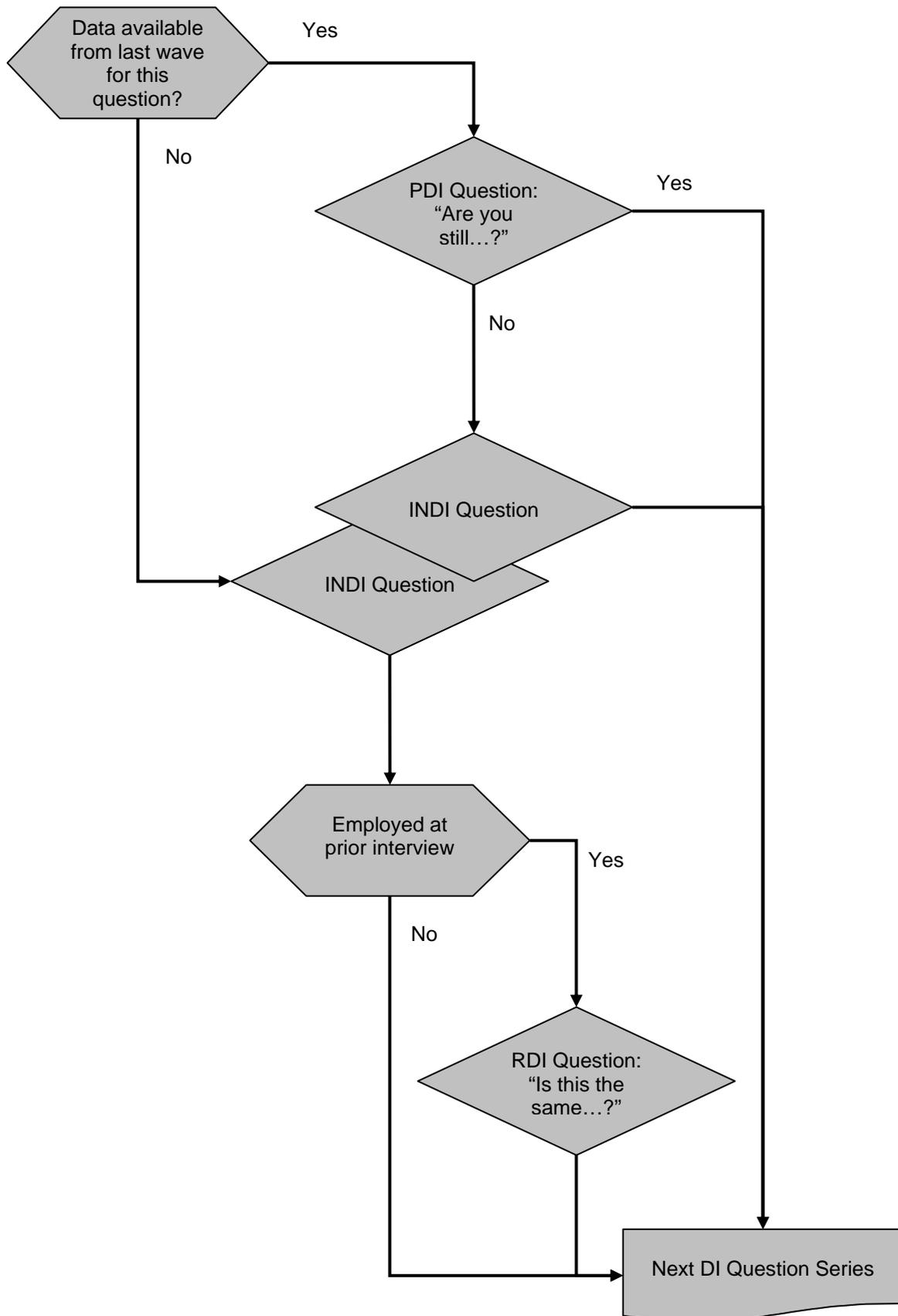


Figure 1b Logical Schematic of Earnings Edit-Check

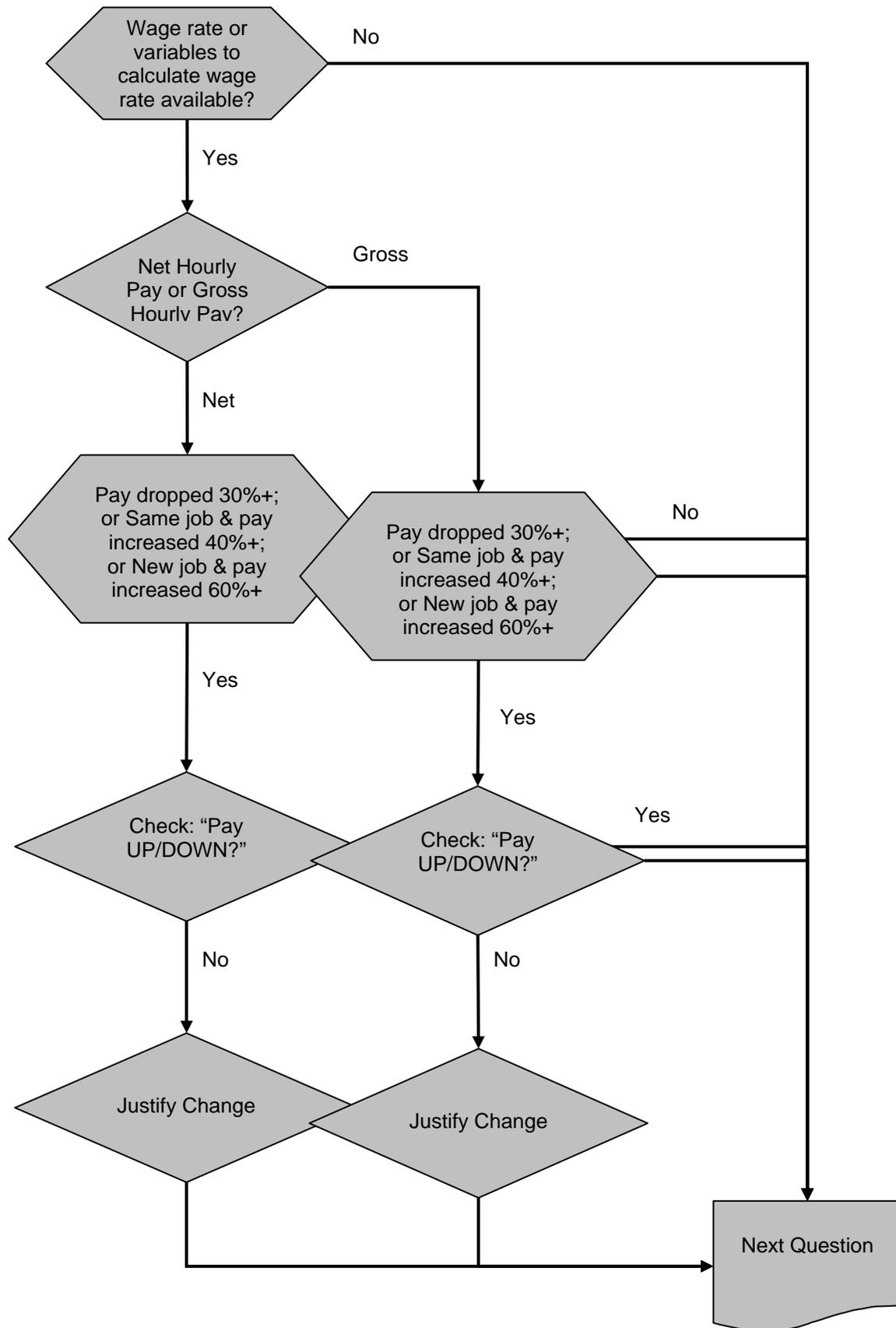


Figure 2a Logical Schematic of Entering or Skipping the Employment History

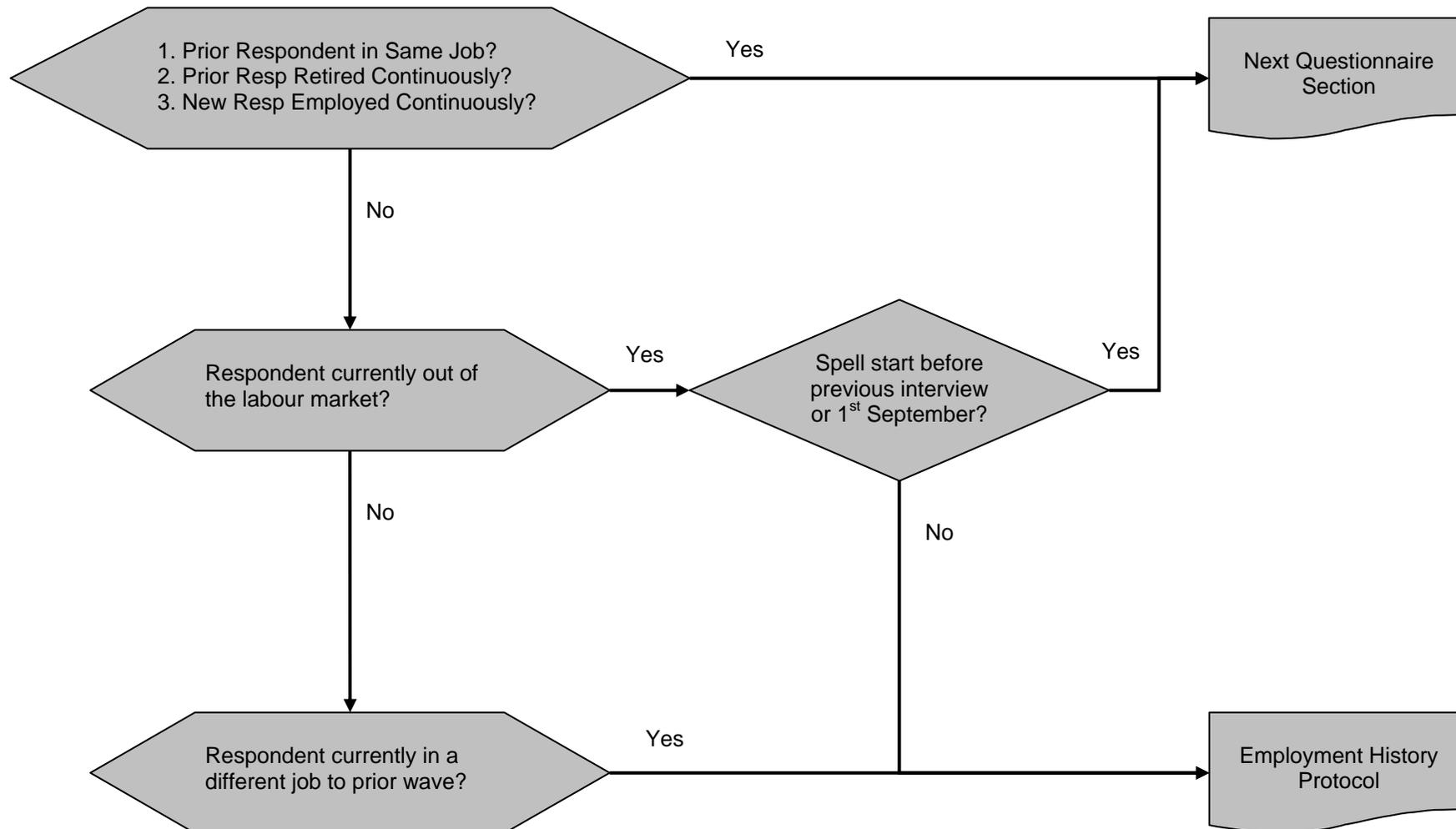
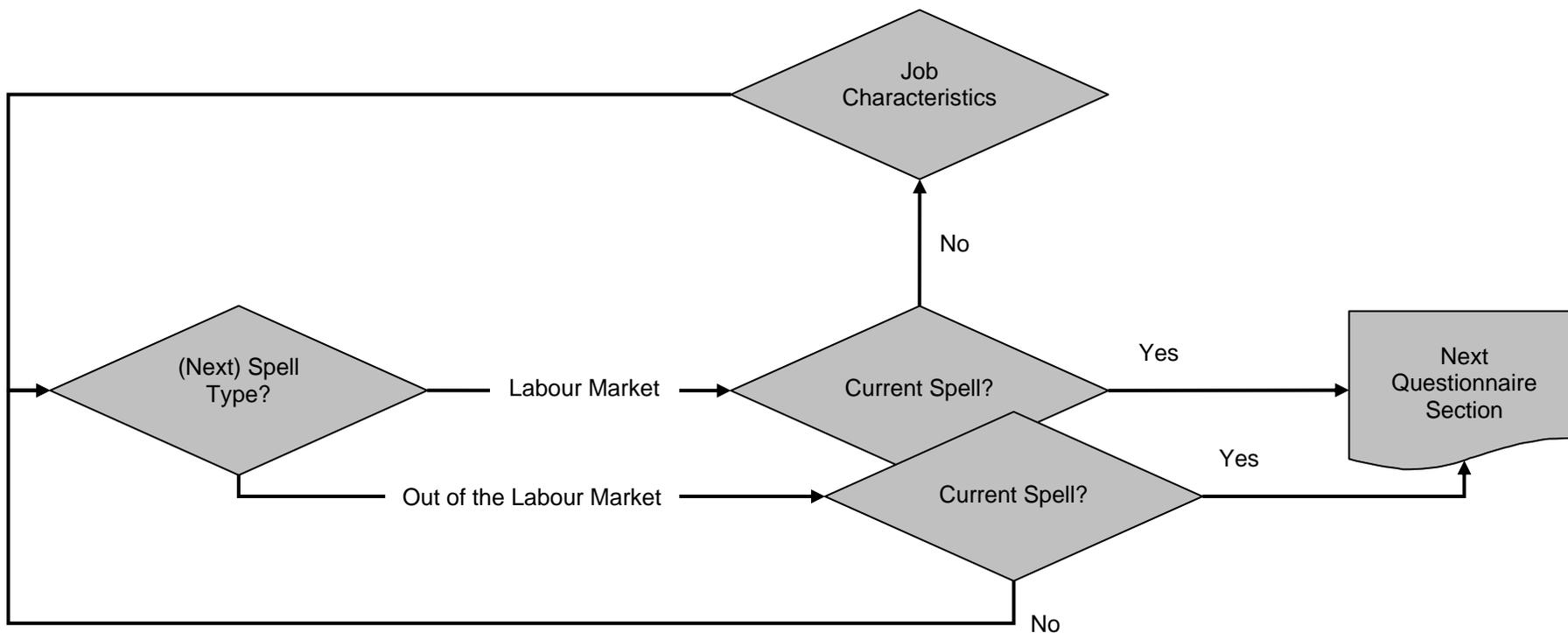


Figure 2b Logical Schematic of Flow Through Employment History



APPENDIX A1

USE OF DI TO GATHER CURRENT EMPLOYMENT CHARACTERISTICS

**RESPONDENTS NEVER INTERVIEWED (KEY CHECK B NE 1)
OR NOT EMPLOYED t-1/t-2 (EMPY=0) OR THOSE WITH NO FED-FORWARD
DATA (i.e. not interviewed at either t-1 or t-2) FOLLOW ROUTING FOR NO
VALID INFORMATION FROM PREVIOUS INTERVIEW i.e. E5, E6, E6a
(not NI), E7, E8, E9, E10**

E5 **CHECK
IF VALID OCCUPATIONAL DESCRIPTION AND
VALID SOC CODE (Y5 = 1) ASK E5P (1)
ELSE GO TO 0 (2)
NO FED-FORWARD DATA (3)**

E5P Last time we interviewed you, on <INTDATE>, you said your main job was <OCCUP>.
Are you still in that same occupation as your main job?

**IF MORE THAN ONE JOB: MAIN = JOB WITH MOST HOURS
IF EQUAL HOURS: MAIN JOB = HIGHEST PAID**

Yes1 **GO TO E6 CHECK**
No2 **ASK E5**
Don't know8

E5. What was your (main) job last week? Please tell me the exact job title and describe fully
the sort of work you do.

**IF MORE THAN ONE JOB: MAIN = JOB WITH MOST HOURS
IF EQUAL HOURS: MAIN JOB = HIGHEST PAID**

OFFICE CODE			

ENTER JOB TITLE: _____

**DESCRIBE FULLY WORK DONE:
(IF RELEVANT 'WHAT ARE THE MATERIALS MADE OF?')**

E5R **CHECK
IF IN EMPLOYMENT AT PREVIOUS INTERVIEW AND NO VALID
OCCUPATIONAL DESCRIPTION AND VALID SOC CODE FROM
PREVIOUS INTERVIEW (EMPY = 1 AND Y5 NE 1)
ASK E5R (1)
ELSE GO TO E6 CHECK (2)
NO FED-FORWARD DATA (3)**

E5R Can I just check, is that the same occupation that you had last time we interviewed you,
on <INTDATE>?

Yes1
No2
Don't know8

E6 **CHECK**
IF VALID INDUSTRY DESCRIPTION AND VALID SIC CODE
(Y6 = 1) ASK E6P (1)
ELSE GO TO 0 (2)
NO FED-FORWARD DATA (3)

E6P And last time we interviewed you, (on <INTDATE>) you described the firm/organisation you were working for as <INDUS> Is that still an accurate description of the place where you work?

Yes1 **GO TO E6a CHECK**
No2 **ASK E6**
Don't know8

E6. What does the firm/organisation you work for actually make or do (at the place where you work)?

OFFICE CODE

--	--	--	--

DESCRIBE FULLY

E6R **CHECK**
IF IN EMPLOYMENT AT PREVIOUS INTERVIEW AND NO VALID
INDUSTRY DESCRIPTION FROM PREVIOUS INTERVIEW AND
VALID SIC CODE (EMPY=1 AND Y6 NE 1) ASK E6R (1)
ELSE GO TO E6a CHECK (2)
NO FED-FORWARD DATA (3)

E6R Can I just check, is that the same as what the firm/organisation you worked for last time we interviewed you, (on <INTDATE>) did?

Yes1
No2
Don't know8

E6a **CHECK**
NORTHERN IRELAND GO TO E6aRN CHECK (1)
ELSE IF VALID EMPLOYER/TRADING NAME (Y6a = 1) ASK E6aP (2)
ELSE GO TO E6a (3)
NO FED-FORWARD DATA (4)

E6aP And are you still working for the same employer or trading name which we have as recorded as <EMPLOYER>?

Yes1 **GO TO E7 CHECK**
No2 **ASK E6a**
Don't know8

E6a. What is the exact name of your employer or the trading name if one is used?
DO NOT USE ABBREVIATIONS

WRITE IN _____

E6aR **CHECK**
IF IN EMPLOYMENT AT PREVIOUS INTERVIEW AND NO
VALID EMPLOYER NAME FROM PREVIOUS INTERVIEW
(EMPY=1 AND Y6a NE 1) ASK E6Ar (1)
ELSE GO TO E7 CHECK (2)
NO FED-FORWARD DATA (3)

E6aR Can I just check, is that the same employer or trading name that you were working for last time we interviewed you, on <INTDATE>?

Yes	1	} GO TO E7 CHECK
No	2	
Don't know	8	

GO TO E7 CHECK

IF NORTHERN IRELAND SAMPLE

E6aRN **CHECK**
IF IN EMPLOYMENT AT PREVIOUS INTERVIEW (EMPY = 1)
ASK E6aRN (1)
ELSE GO TO E7 CHECK (2)
NO FED-FORWARD DATA (3)

E6aRN Can I just check, are you still working for the same employer or under the same trading name as when we last interviewed you on <INTDATE>?

Yes	1
No	2
Don't know	8

E7 **CHECK**
IF VALID EMPLOYMENT STATUS PREVIOUS WAVE (Y7 = 1) ASK E7P (1)
ELSE GO TO E7 (2)
NO FED-FORWARD DATA (3)

E7P And are you still <JBSEMP>? (an employee/self-employed)

Yes, employee.....	1	<u>GO TO E7a CHECK</u>
Yes, self-employed	2	<u>GO TO E73</u>
No	3	<u>ASK E7R</u>
Don't know	8	<u>GO TO E7</u>

E7R So now you are <AN EMPLOYEE / SELF-EMPLOYED>? {text fill is opposite JBSEMP text from fed-forward category}

Yes, employee.....1 GO TO E7a CHECK
 Yes, self-employed2 GO TO E73
 No3 ASK E7
 Don't know8

E7. Are you an employee or self-employed?

Employee1 ASK E7a
 Self-employed.....2 GO TO E73

ASK EMPLOYEES ONLY

E7a **CHECK**
IF STILL IN SAME OCCUPATION AND WITH SAME EMPLOYER
(E5P=1 OR E5R=1) AND (E6aP=1 OR E6aR=1 OR E6aRN=1)

ASK E7a (1)
 ELSE GO TO E8 (2)
 NO FED-FORWARD DATA (3)

E7a Have you had a promotion or changed grade since <INTDATE>?

Yes1 ASK E7b
 No2 GO TO E7c
 Don't know8

E7b Can you tell me the date you were promoted or changed grades?
CODE DON'T KNOW - DAY OR MONTH = 98, YEAR = 9998

Day		Month		Year			
<input type="text"/>							

E7bDK **INTERVIEWER CHECK:**
Is date of promotion at E7b before September 1st 2005?

DATE AT E7b IS: BEFORE September 1st 20051
 September 1st 2005 or AFTER.....2

E7c Have you been working in your current job for your current employer continuously since <INTDATE>?

Yes1
 No2

E8 **CHECK**
IF VALID MANAGERIAL DUTIES FROM PREVIOUS INTERVIEW
(Y8=1) AND STILL IN SAME OCCUPATION AND WITH SAME
EMPLOYER (E5P=1 OR E5R=1) AND (E6aP=1 OR E6aR=1 OR

E6aRN=1) ASK E8P (1)
 ELSE GO TO 0 (2)
 NO FED-FORWARD DATA (3)

E8P And do you still have no managerial or supervisory responsibilities? If <MANAG>?

Yes1 **GO TO E9 CHECK**
 No2 **ASK E8**
 Don't know8

E8. Do you have any managerial duties or do you supervise any other employees?

Manager.....1
 Foreman/supervisor2
 NOT manager or supervisor3

E9 **CHECK**
IF E6AP = 1 OR E6AR = 1 AND VALID SECTOR FROM PREVIOUS INTERVIEW (Y9 = 1) AND STILL IN SAME OCCUPATION AND WITH SAME EMPLOYER (E5P=1 OR E5R=1) AND (E6aP=1 OR E6aR=1 OR E6aRN=1) ASK E9P (1)
ELSE GO TO 0 (2)
NO FED-FORWARD DATA (3)

E9P And are you still working for <SECTOR>?

Yes1 **GO TO E10 CHECK**
 No2 **ASK E9**
 Don't know8

E9 **SHOWCARD 33**
 Which types of organisation on this card do you work for (in your main job)?

Private firm/company/plc.....01
 Civil Service or
 central government (not armed forces)02
 Local government or town hall
 (inc local education, fire, police)03
 National Health Service or State
 Higher Education (inc polytechnics).....04
 Nationalised Industry05
 Non-profit making organisation
 (include charities, co-operatives etc)06
 Armed forces.....07
 Other (**PLEASE GIVE DETAILS**)
 _____08

E10 **CHECK**
IF E6AP = 1 OR E6AR = 1 AND VALID SIZE OF WORK PLACE FROM PREVIOUS INTERVIEW (Y10 = 1) AND STILL IN SAME OCCUPATION AND WITH SAME EMPLOYER (E5P=1 OR E5R=1) AND (E6aP=1 OR E6aR=1 OR E6aRN=1) ASK E10P (1)
ELSE GO TO 0 (2)
NO FED-FORWARD DATA (3)

E10P And is the number of people employed at the place you work still <SIZE>?

Yes	1	<u>GO TO E11</u>
No	2	ASK E10
Don't know	8	

E10 **SHOWCARD 34**

How many people are employed at the place where you work?

INCLUDE ALL EMPLOYEES INCLUDING PART-TIME AND SHIFT WORKERS

1 - 2	01
3 - 9	02
10 - 24	03
25 - 49	04
50 - 99	05
100 - 199	06
200 - 499	07
500 - 999	08
1000 or more	09
Don't know but fewer than 25	10
Don't know but 25 or more.....	11

APPENDIX A2

WAGE CHECK SERIES IN CURRENT EMPLOYMENT SECTION

E20. The last time you were paid, what was your gross pay - that is including any overtime, bonuses, commission, tips or tax refund, but before any deductions for tax, national insurance, or pension contributions, union dues and so on?

IF 'DON'T KNOW / CAN'T REMEMBER' PROBE: 'Can you give me an approximate amount?'

ENTER TO NEAREST £:

--	--	--	--	--

 ASK E21

Don't know8 **GO TO E22**
 Refused9 **GO TO E31**

RESPONDENT TO CHECK PAY SLIP IF POSSIBLE

E21. How long a period did that cover?

- Week1
- Fortnight2
- Four weeks3
- Calendar month4
- Year5
- Other (WRITE IN)6

OFFICE
CODE

--	--	--

E22. And what was your take-home pay last time, that is after any deductions were made for tax, National Insurance, pensions, union dues etc?

IF 'DON'T KNOW / CAN'T REMEMBER' PROBE: 'Can you give me an approximate amount?'

ENTER TO NEAREST £:

--	--	--	--	--

 ASKE23

Don't know8 **GO TO E30a CHECK**
 Refused9
 NO DEDUCTIONS MADE0 **GO TO E23a)**

RESPONDENT TO CHECK PAY SLIP IF POSSIBLE

E23. How long a period did that cover?

- Week1
- Fortnight2
- Four weeks3
- Calendar month4
- Year5
- Other (WRITE IN)6

OFFICE
CODE

--	--	--

E23a) Did your last take-home pay of {amount at E22 or amount at E20 if code 0 at E22} include a payment for Working Tax Credit?

WORKING TAX CREDIT REPLACES THE FORMER BENEFIT 'WORKING FAMILY TAX CREDIT' AND DISABLED PERSONS TAX CREDIT

Yes1 **ASK E23b**
 No.....2 **GO TO E24**
 Don't Know8

E23b) How much was included for Working Tax Credit?
IF 'DON'T KNOW / CAN'T REMEMBER' PROBE: 'Can you give me an approximate amount?'

ENTER TO NEAREST £:

--	--	--	--

Don't know8
 Refused9

E23c) What period did this cover?

Week1
 Fortnight.....2
 Four weeks3
 Calendar month4
 Other (**WRITE IN**).....5

OFFICE
 CODE

--	--	--

E24. RECORD PAY SLIP CHECK

Respondent checked most recent payslip.....1 **ASK E25**
 Respondent checked earlier payslip2
 No payslip checked.....3 **GO TO E26**

E25. Can you tell me what your Tax Code is?
DO NOT ADD EXTRA LEADING ZEROS

WRITE IN:

--	--	--	--	--

Don't know8
 Refused9

E26. Your take home pay last time was (AMOUNT AT E22 or amount at E20 if E22 = 0). Is this the amount you usually receive (before any statutory sick pay or statutory maternity pay)?

Yes1 **GO TO E30a**
 No2 **ASK E27**

E27. How much are you usually paid?
IF NO USUAL: GIVE AVERAGE
IF 'DON'T KNOW / CAN'T REMEMBER' PROBE: 'Can you give me an approximate amount?'

ENTER TO NEAREST £:

--	--	--	--	--

 ASK E28

Don't know8 **GO TO E30**
 Refused9 **GO TO E31**

E28. How long a period did that cover?

Week1
 Fortnight2
 Four weeks.....3
 Calendar month.....4
 Year5
 Other (**WRITE IN**)6

OFFICE
CODE

--	--	--

E29. And is that before or after any deductions for tax, national insurance, union dues and so on or are there usually no deductions at all made from your salary?

Before deductions1
 After deductions2
 No deductions3
 Don't know8

E30. Can I just check, why was it that your pay last time was different from your usual pay?
CODE ALL THAT APPLY

- 1) It included back pay01
- 2) It included advance holiday pay02
- 3) It included a tax refund03
- 4) It included statutory sick pay04
- 5) Absent due to sickness, no statutory sick pay included05
- 6) It included statutory maternity pay06
- 7) Unusual amount of overtime07
- 8) It included a bonus payment, tips or commission.....08
- 9) Other (**SPECIFY**)09

E30a **CHECK**
IF (NHRPAY>0) & (wNHRPAY>0) GO TO E30b CHECK; (1)
ELSE IF (GHRPAY >0) & (wGHRPAY>0) GO TO E30d CHECK (2)
ELSE GO TO E31 (3)
NO FED-FORWARD DATA (4)

E30b **CHECK**
IF (NHRPAY <0.7 * wNHRPAY), OR IF (SAMEJB = 1 AND (NHRPAY >1.4 * wNHRPAY)), OR IF (SAMEJB=2 AND NHRPAY > 1.6 * wNHRPAY)) ASK E30c (1)
ELSE GO TO E31 (2)

i.e. ASK E30c if hourly pay has fallen by more than 30% OR (respondent in same job as in previous year AND hourly pay has increased by more than 40%) OR (respondent in different job AND hourly pay has increased by more than 60%)

N.B. The term <CONVERTED AMOUNTS> in **E30c** and **E30d** refers to pay amounts from previous interview converted to cover pay period stated in current interview

E30c So your net pay has gone <UP/DOWN> since last time we interviewed you, from <CONVERTED AMOUNT> per <E23PERIOD> for a <wTOTHRS> hour work week (including overtime), to <E22AMT> per <E23PERIOD>, is that correct?

Yes.....1 **GO TO E31**
 No.....2 **ASK E30cv**
 Don't Know/Other8

E30cv **INTERVIEWER: ASK RESPONDENT FOR AN EXPLANATION AND WRITE IN WITH ANY CORRECTED AMOUNTS/PERIODS**

GO TO E31

E30d **CHECK**
IF (GHRPAY < 0.7 * wGHRPAY), OR IF (SAMEJB=1 AND (GHRPAY > 1.4 * wGHRPAY)), OR IF (SAMEJB=2 AND GHRPAY > 1.6 * wGHRPAY)) ASK E30d (1)
ELSE GO TO E31 (2)

E30d So your gross pay has gone <UP/DOWN> since last time we interviewed you, from <CONVERTED AMOUNT> per <E21PERIOD> for <wTOTHRS> hour work week (including overtime), to <E20AMT> per <E21PERIOD>, is that correct?

Yes.....1 **GO TO E31**
 No.....2 **ASK E30dv**
 Don't Know/Other8

E30dv **INTERVIEWER: ASK RESPONDENT FOR AN EXPLANATION AND WRITE IN WITH ANY CORRECTED AMOUNTS/PERIODS**

APPENDIX A3

THE USE OF DI TO GATHER EMPLOYMENT HISTORY DATA

CHECK

- IF IN CURRENT EMPLOYMENT (E1=1 or E2=1) AND NO CHANGES TO PREVIOUS WAVE EMPLOYMENT i.e. (E6aP =1 or E6aR=1 or E6aRN = 1) AND (E5P=1 or E5R=1) AND (E7c=1 or E100a=1) GO TO RV1 (1)**
- ELSE IF KEY CHECK B NE 1 OR (INT1=0 and INT2=0) AND START DATE OF CURRENT EMPLOYMENT (E57 or E100b) BEFORE September 1st 2005 OR (E58=1 or E100c=1) GO TO RV1 (2)**
- ELSE IF IN CURRENT EMPLOYMENT (E1=1 or E2=1) GO TO J9 CHECK (3)**
- ELSE IF HAVE FED-FORWARD RETIREMENT ACTIVITY (ACTT1=4) AND HAVE VALID START DATE OF RETIREMENT (NEW VAR TO BE INCLUDED on FED-FORWARD FILE) AND D17=4 (CURRENTLY RETIRED) GO TO RV1 (4)**
- ELSE IF NOT CURRENTLY EMPLOYED (E1 ne 1 and E2 ne 1) AND D17 or D29 = 10 (Something else) GO TO J9 CHECK (5)**
- ELSE IF NOT CURRENTLY EMPLOYED (E1 ne 1 and E2 ne 1) GO TO J7 (6)**
- ELSE GO TO RV1 (7)**

There are no questions J2 to J6

NON EMPLOYED ONLY

You told me earlier that you are currently <category at D17/D29>. On what date did your present spell of being <category at D17/D29> begin?

**IF DON'T KNOW DAY OR MONTH ENTER 98 AND CODE YEAR
IF DON'T KNOW YEAR ENTER 9998**

WRITE IN: Day Month Year

--	--	--	--	--	--	--	--

INTERVIEWER CHECK:

Is date at J7 before <INTDATE>/September 1st 2005?

ASK RESPONDENT IF UNCLEAR

DATE IS: *Yes, before <INTDATE>/September 1st 2005.....1 GO TO J29*
 No, <INTDATE>/September 1st 2005 or after.....2 J9 CHECK

CHECK

- IF previous respondent with valid previous activity (ACTT1 = 1 to 9) ASK J9a (1)**
- ELSE GO TO J9b (2)**

J9a When we last interviewed you, on <INTDATE>, our records show that you were <ACTT1>. Is that correct?

- Yes.....1 **GO TO J9 Intro**
- No.....2 **ASK J9b**
- Don't know8

J9b **SHOWCARD 44**

Please look at this card and tell me which best describes your situation on {September 1st 2005/ <INTDATE>}?

CODE ONE ONLY

- Self employed01
 - In paid employment (full or part-time)02
 - Unemployed.....03
 - Retired from paid work altogether04
 - On maternity leave05
 - Looking after family or home06
 - Full-time student/ at school.....07
 - Long term sick or disabled.....08
 - On a government training scheme09
 - Something else (**PLEASE GIVE DETAILS**)
-
- 10

(Note – use categories below for text fill at J9 Intro)

- Job.....01
 - Job.....02
 - Unemployment.....03
 - Retirement.....04
 - Maternity leave05
 - Looking after the family or home06
 - Being a full-time student/ at school07
 - Long term sickness or disability08
 - Being on a government training scheme.....09
 - Something else (**PLEASE GIVE DETAILS**)
-
- 10

J9 **INTRO**
READ OUT

I'd like to ask you a few questions now about what you might have been doing since <INTDATE>/September 1st 2005 in the way of paid work, unemployment, or things like time spent retired or looking after your family.

As we need to get as complete a picture as possible I'd like you to tell me about any spells you may have had in or out of paid employment, even if they were just a few days when you were waiting to take up another job. I'd also like you to tell me about any changes that might have happened while you were working like getting promoted or starting a different job with the same employer.

IF J9a =1

I'll start by asking about what you were doing immediately after the {job} (**IF ACTT1 = 1 or 2**)/ period of <ACTT1> which you were doing on <INTDATE>.

GO TO J10

IF J9a>1

I'll start by asking about the {job} (**J9b = 1 or 2**)/ period of <J9b> which you were doing on <INTDATE>/September 1st 2005.

On what date did you stop doing that {job} / {period of <ACTT1> or <J9b>}?

IF DON'T KNOW DAY OR MONTH ENTER 98 AND CODE YEAR

IF DON'T KNOW YEAR ENTER 9998

Day Month Year

ENTER DATE:

Not ended, this is current job / status.....1 **GO TO J29**

J10COND2

IF DATE ENTERED AT J10 AND [(J9b eq 1 or 2) or (ACTT1 eq 1 or 2)] (last activity was employment) GO TO J27 THEN ASK

J10a

(1)

ELSE ASK J10a

(2)

J10a SHOWCARD 45

IF SPELL 1 ASK

Can you look at this card please and tell me which of the descriptions comes closest to what you did next?

IF SPELL 2 thru 9 ASK

And from the card can you tell me which of the descriptions comes closest to what you were doing immediately after that period of {Category at J10a from spell -1 }?

ENTER CODE FROM SHOWCARD 45

SHOWCARD 45	
01 Doing a <u>different job</u> for <u>same employer</u>	04 Retired from paid work altogether
<input type="checkbox"/> Working for a <u>different</u> employer	05 On maternity leave
02 In paid employment (<u>not</u> self employed)	06 Looking after family or home
<input type="checkbox"/> Working for <u>myself</u> (self employed)	07 In full-time education/student
03 Unemployed/looking for work	08 <u>Long term</u> sick or disabled
	09 On a government training scheme
	10 Something else
	(PLEASE GIVE DETAILS)

J10b And on what date did you stop doing that and start your next job or other activity?

IF DON'T KNOW DAY OR MONTH ENTER 98 AND CODE YEAR

IF DON'T KNOW YEAR ENTER 9998

Day Month Year

ENTER DATE:

Not ended, this is current job / status.....1 **GO TO J10bCOND3**

J10bCOND1

IF DATE ENTERED AT J10b AND (J10a =1 or 2) ASK J13 – 27 (employment details) THEN RETURN TO J10a (1)
CONTINUE WITH J10a, J10b until ‘current job/status’ is reached THEN GO TO J10bCOND3

J10bCOND3

IF J10b = 1 (NOT ENDED) AND (J10a =1 or 2) AND [(SPELL -1 was employment (J10a = 1 OR 2) OR (ACTT1= 1 or 2/J9b = 1 or 2) AND J27=2)] GO TO J28 (1)

THEN TO J28a_2 summary screen

(To allow for cases where there are only two employment spells: the previous interview spell (ACTT1 or J9b) and the current not ended spell as well as cases where the last transition is job to job and they have said they left their last job for a better one i.e. code 2 at J27)

ELSE GO TO J28a_2 summary screen (2)

There are no questions J11 and J12

For each employment spell until current status is reached the following sequence of questions is asked.

J14 Could you give me some details of the job which you stopped doing on (DATE AT J10 / J10b). Please tell me the exact job title and describe fully the sort of work you did.

**NB IF MORE THAN ONE JOB, MAIN = MOST HOURS
IF EQUAL HOURS THEN HIGHEST PAID**

(No question J15)

J16 Were you a full-time employee a part-time employee or self-employed?

F/T Employee1 **GO TO J18**

P/T Employee2 **GO TO J18**

Self-Employed 3 **ASK J17**

J17 Did you have any employees?

Yes 1

No 2

NOW GO TO J22

J18 **SHOWCARD 46**

Which of the types of organisation on this card did you work for?

- Private firm 01
- Civil Service 02
- Local Government 03
- NHS 04
- Nationalised Industry 05
- Non-Profit Organisation 06
- Armed Forces..... 07
- Other (SPECIFY) 08

J19 Did you have any managerial duties, or did you supervise any other employees?

- Manager..... 1
- Foreman/
supervisor .. 2
- NOT** manager or
supervisor .. 3

(No questions J20 or J21)

J22 What did the firm/organisation you worked for actually make or do?

J23 How many people (were employed/did you employ) at the place where you worked?

- 1-2..... 01
- 3-9..... 02
- 10-24..... 03
- 25-49..... 04
- 50-99..... 05
- 100-199..... 06
- 200-499..... 07
- 500-999..... 08
- 1000 or more..... 09
- DK, fewer than 25 .. 10
- DK, 25 or more 11

J24 Please think back to {September 1st 2005} / {when you started that job}. At that time, how much were you usually paid?

J25 How long a period did that cover?

- Week..... 1
- Fortnight 2
- Four Weeks. 3
- Calendar Month 4
- Year 5
- Other..... 6

(WRITE IN)

J26 And was that before or after any deductions for tax, national insurance, union dues and so on or were there no deductions at all usually made from your pay?

- Before deduction ... 1
- After..... 2
- No deductions..... 3
- Don't know 8

J27 **SHOWCARD 47**

Would you look at this card please and tell me which of the statements on the card best describes why you stopped doing that job?

J28 **ASK IF J10bCOND3 APPLIES**

What was the main thing about your present job that attracted you to it?

GO TO J39

APPENDIX A4

HOUSEHOLD FINANCES

F0. TIME SECTION BEGUN

Hours	Minutes

INTRODUCTION: One of the most important parts of our research is how people are getting by financially these days. We have found that we need to ask about a number of different types of income because otherwise our results could be misleading. I'd like to remind you that anything you tell me is completely confidential.

F1. I am going to show you four cards listing different types of income and payments. Please look at this card (**SHOWCARD 63**) and tell me if, since September 1st 2005, you have received any of the types of income or payments shown, either just yourself or jointly?

**IF YES: Ask 'which ones?' PROBE 'Any others?' UNTIL FINAL 'No'.
RING CODES FOR ALL THAT APPLY. REPEAT FOR EACH CARD IN TURN.
IF RESPONDENT REFUSES CODE 'Refused' AT F2**

SHOWCARD 63

N.I. Retirement / State Retirement
(Old Age) Pension01
A Pension from a
previous employer02
A Pension from a spouse's
previous employer03
A Private Pension/Annuity04
A Widow's or
War Widow's Pension05
A Widowed mother's
allowance06
Pension Credit07
(Introduced from October 2004)

SHOWCARD 65

Income Support32
Job Seeker's Allowance42
Child Benefit35
Child Benefit (Lone Parent)36
Working Tax Credit37
(Formerly Working Family Tax Credit
and Disabled Person's Tax Credit)
Maternity Allowance38
Housing Benefit/Rent rebate
or allowance39
Council Tax Benefit40
Any other state benefit41
Child Tax Credit43
(Introduced from April 2004)

SHOWCARD 64

Severe Disablement Allowance16
Industrial Injury or
Disablement Allowance18
Disability Living Allowance/
Care Component26
Disability Living Allowance/
Mobility Component27
Disability Living Allowance/
Components not known28
Attendance Allowance19
Invalid Care Allowance21
War Disability Pension22
Incapacity Benefit25
(Formerly invalidity benefit/NI Sickness benefit)

SHOWCARD 66

Educational Grant
(not Student Loan)51
Trade Union/Friendly
Society Payments52
Maintenance or Alimony53
Payments from a family
member not living here54
Rent from Boarders or lodgers
(not family members)
living here with you55
Rent from any other property56
Foster Allowance57
Sickness or accident insurance58
Any other regular payment59
(PLEASE GIVE DETAILS)

CHECK Pension

**IF RESPONDENT IS (MALE AND AGED 65 OR OVER) OR (FEMALE AND AGED 60 OR OVER) AND DID NOT REPORT RECEIPT OF THE STATE RETIREMENT PENSION (F1 NE 1) ASK NFA
ELSE GO TO CHECK Pension Credit**

NFA Can I just check, do you currently receive the State Retirement Pension?

Yes, receives pension (inc joint receipt)1 ASK NFB
No, not receiving (inc deferred pensions).....2 **GO TO CHECK Disability benefits**

CHECK Pension Credit

**IF RESPONDENT RECEIVES ONLY STATE RETIREMENT PENSION (F1 = 1 OR NFA = 1) AND (F1 NE 2,3,4,5,6 or 7) ASK NFB
ELSE GO TO CHECK Disability benefits**

NFB Do you currently receive Pension Credit?

Yes, receives pension credit (inc joint receipt)1
No, does not receive.....2
Don't know8

IF NFA eq 1 or NFB eq 1 GRID(s) COLLECT DETAILS (max 2 grids)

CHECK Disability benefits

**IF RESPONDENT IS LONG TERM SICK, DISABLED OR HAS A CHRONIC CONDITION (D17 = 8 OR D29 = 8 OR M1 = 1 OR M3 NE 0) AND (E1 = 2 and E2 = 2) AND (F1 NE 16,18,26,27,28,19,21,22 OR 25) ASK NFC
ELSE GO TO CHECK Income support/JSA**

NFC Can I just check, do you currently receive disability benefits of any kind?

Yes.....1 ASK NFD
No.....2 **GO TO CHECK Income support/JSA**

NFD SHOWCARD 64

Which ones do you receive?
**CODE ALL THAT APPLY
GRIDS COLLECT DETAILS FOR EACH CODED AT NFD
(max 9 grids)**

CHECK Income support/JSA

**IF RESPONDENT UNEMPLOYED (D17 = 3 OR D29 = 3) AND (F1 NE 32 OR 42) ASK NFE
ELSE GO TO CHECK Child Benefit**

NFE Can I just check, do you currently receive any benefits such as Income Support or Job Seekers Allowance?
CODE ALL THAT APPLY

- Yes, Income Support.....1
 - Yes, Job Seekers Allowance2
 - No, receive none of these.....3
- GO TO CHECK
Child benefit**

GRIDS COLLECT DETAILS FOR CODES 1 and 2 AT NFE (max 2 grids)

CHECK Child benefit
IF RESPONDENT IS THE MOTHER OF A CHILD AGED 18 OR UNDER LIVING IN THE
HOUSEHOLD AND DID NOT REPORT RECEIVING CHILD BENEFIT
(F1 NE 35) ASK NFF
ELSE GO TO CHECK Housing Benefit

NFF Can I just check, do you currently receive Child Benefit?

- Yes, receives child benefit1
- No, not receiving (no children eligible).....2

**GO TO CHECK
Housing Benefit**

GRID COLLECT DETAILS FOR CODE 1 AT NFF (max 1 grid)

CHECK Housing benefit
IF RESPONDENT RECEIVES MEANS TESTED BENEFITS AND
NO HOUSING BENEFIT (F1 = 7 OR F1 = 25 OR F1 = 32 OR
F1 = 42 OR NFB = 1 OR NFD = 25 OR NFE = 1 OR NFE = 2)
AND (F1 NE 39)

NFG Can I just check, do you currently receive Housing Benefit?

- Yes, receives Housing Benefit1
- No, not receiving Housing Benefit2

GRID COLLECT DETAILS FOR CODE 1 AT NFG (max 1 grid)

FOR EACH FED FORWARD SOURCE 1 THROUGH SOURCE 12 NOT MENTIONED AT
F1
OR CHECKED AT (NFA THRU NFG) INCLUDING THOSE CONFIRMED AS NOT
RECEIVED, ASK NFH

NFH Can I just check, according to our records you have in the past received <SOURCE1 --
SOURCE12>. Have you received
<SOURCE1 -- SOURCE12> at any time since <INTDATE>?

- Yes.....1
- No.....2

FOR EACH PAYMENT TYPE CODED 'YES' COLLECT DETAILS ON GRID

F2. **INTERVIEWER CHECK**
How many sources of income in total were recorded above?

Refused.....9 **GO TO**
None.....0 **NF3**

F3a. **TRANSFER THE NAME AND CODE OF EACH RECEIVED INTO SEPARATE INCOME GRIDS. FOR EACH ONE ASK 3b 3f BELOW AND RECORD ANSWERS IN GRIDS.**

IF RESPONDENT RECEIVES MORE THAN ONE INCOME WITHIN ANY SOURCE ENTER IN SEPARATE GRIDS.

F3b. And for which months since September 1st 2005 have you received ?
(RING CODES FOR MONTHS WHEN PAID, IF ALL UP TO CURRENT MONTH RING 'ALL')

F3c. Are you still receiving ?

F3d. How much was the last payment of you received?
(TO NEAREST £)
IF 'DON'T KNOW/CAN'T REMEMBER' PROBE: 'Can you give me an approximate amount?'

F3e. What period did that cover?

F3f. (Have you been receiving/did you receive) that solely in your name or jointly with someone else?
IF 'JOINTLY' RECORD PERSON NUMBER FROM HOUSEHOLD GRID;
IF PERSON NOT IN HOUSEHOLD CODE '00'.
IF RECEIVED BOTH JOINTLY AND SOLELY OVER PAST YEAR (e.g. with spouse who has since died or left household)
RECORD PERIOD OF JOINT RECEIPT, AND PERIOD OF SOLE RECEIPT ON SEPARATE GRIDS)

APPENDIX A5

PENSION CONTRIBUTIONS

F4. I'd like to ask you now about private personal pensions, that is a pension that you yourself have taken out on your own behalf.

In the past year, that is since September 1st 2005 have you paid any contributions or premiums for a private personal pension, or had such contributions paid on your behalf by the Department of Work and Pensions?

Yes 1 ASK F4a check
 No 2 **GO TO RF1 check**

F4a **CHECK**
If YF14 = 1 OR 2 ASK F4a (1)
ELSE GO TO F5 (2)

F4a Can I just check, is this the policy you took out in < PPPD1 / PPPD2 >?

Yes.....1 GO TO F4b check
 No.....2 **GO TO F5**
 Don't know8

F4b **CHECK**
IF YF14 = 1 GO TO F7
IF YF14 = 2 GO TO F10

F5. Was your policy taken out before July 1st 1988 or since then?
THIS IS THE DATE 'RETIREMENT ANNUITY PENSIONS' WERE REPLACED WITH 'PERSONAL PENSIONS'

Before July 1st 1988..... 1 ASK F6
 July 1st 1988 or since 2 **GO TO F9**
 Both 3

PENSIONS BEFORE JULY 1st 1988

F6. What year did you first take out **this** policy?

Year

WRITE IN:

--	--	--	--

Don't know8
 Refused9

F7. How much was your last contribution or premium?
IF 'DON'T KNOW/CAN'T REMEMBER' PROBE: 'Can you give me an approximate amount?'

£

--	--	--	--

ASK F8

Don't know..... 8 **GO TO**
 Refused 9 **RF1 CHECK**

F8. How long did this cover?

- A week 1
 - A month 2
 - A quarter 3
 - Six months 4
 - A year 5
 - A once off payment 6
 - Other (SPECIFY) 7
-

GO TO RF1 CHECK

OFFICE CODE

--	--	--

PENSIONS SINCE JULY 1st 1988

F9. In what year since July 1st 1988 did you first take out this policy?

Year

WRITE IN:

--	--	--	--

- Don't know 8
- Refused 9

F10. Since September 1st 2005, over and above those contributions paid on your behalf by the Department of Work and Pensions, have you yourself made any contributions towards your personal pension?

- Yes 1 **ASK F11**
- No 2 **GO TO RF1 check**

F11. How much was your last contribution?

IF 'DON'T KNOW/CAN'T REMEMBER' PROBE: 'Can you give me an approximate amount?'

£

--	--	--	--

ASK F12

- Don't know 8 **GO TO**
- Refused 9 **RF1 check**

F12. How long did this cover?

- A week 1
 - A month 2
 - A quarter 3
 - Six months 4
 - A year 5
 - A once off payment 6
 - Other (SPECIFY) 7
-

OFFICE CODE

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APPENDIX B

DEBRIEF FORM FOR LIB INTERVIEWERS – WAVE 16 PILOT

Please complete after you have finished all of your interviews.

We would like you to think about all of the interviews you conducted – some of which will have used dependent interviewing and some of which will not have.

We will use the feedback you provide to improve the questionnaire. We hope that we can make the questionnaire easier to administer for both you and respondents. Thanks for your assistance!

Please enter your interviewer number _____

- 1a. Did you notice any problems with the question wording in any of the questions in which the respondent's prior information was used? Please circle the number indicating "Yes" or "No" in each of the cells below.

Was the text fill ever ...	Current Employment	Job History	Finance Section
...missing when it should have been included?	Yes 1 No 2	Yes 1 No 2	Yes 1 No 2
...incorrect?	Yes 1 No 2	Yes 1 No 2	Yes 1 No 2
...awkward to read out?	Yes 1 No 2	Yes 1 No 2	Yes 1 No 2
Any other problems with text fills?	Yes 1 No 2	Yes 1 No 2	Yes 1 No 2

- 1b. If "Yes" to any of the above, please provide details.
WRITE IN

- 2a. Did incorporating information from the respondent's prior interview impact on the flow of the interviews? Would you say it ...

Improved the flow 1 **GO TO 2b**
 Impaired the flow 2
 Sometimes improved, sometimes impaired 3 _____
 Had no impact on the flow 4 **GO TO 3**

- 2b. How was the flow affected? (Please include as much detail as possible)
WRITE IN

3. How would you say using the respondent's previous information affected how much time the interview took?
Would you say this made the interview ...

Longer 1
 Shorter 2
 Sometimes longer, sometimes shorter 3
 or Made no difference 4

- 4a. How easy or difficult was it to administer the questions with the respondent's prior interview information included in them? Would you say it was ...

Easy 1 **GO TO 4b**
 Difficult 2
 Sometimes easy, sometimes difficult 3 _____
 It made no difference 4 **GO TO 5**

4b. In what way was it easy or difficult? (Please include as much detail as possible)
WRITE IN

Next, we would like you to compare the questions in which respondent's prior information was used, with versions of the same questions for which we had no prior information to use.

In the current employment section, you will have had a text fill to remind some respondents of their previous employment situation and its characteristics. For other respondents, we will not have had this information and you would have asked for the respondent's job details independently.

5. Which version would you say was easier to administer?

- Text fill easier 1
- Independent easier..... 2
- No difference 3

6. And which version would you say was easier for the respondent to answer?

- Text fill easier 1
- Independent easier..... 2
- No difference 3

In the job history section, you will have had a text fill to remind some respondents of their employment status from the last time they were interviewed, while other respondents were asked about what they were doing on 1 March 2005 independently.

7. Which version would you say was easier to administer?

- Text fill easier 1
- Independent easier..... 2
- No difference 3

8. And which version would you say was easier for the respondent to answer?

- Text fill easier 1
- Independent easier..... 2
- No difference 3

9. Overall, how do you think using the respondent's previous information affected respondent cooperation? Would you say that it ...

- Improved cooperation..... 1
- Impaired cooperation..... 2
- Sometimes improved, sometimes impaired 3
- or Had no affect at all 4

10. Finally, we would appreciate any other comments you may have about using respondents' previous information in the current interview.

WRITE IN

MANY THANKS

APPENDIX B1
Interviewer Observations questions at wave 16

- 11 Were any other people present during any of this interview?
- Yes 1 ANSWER I2
 No 2 GO TO I4
- 12 Did any of these people seem to influence any of the answers given by the respondent?
- A great deal 1 ANSWER I3
 A fair amount 2
 A little 3
 Not at all 4 GO TO I4
- 13 In what way was the respondent influenced?
[NOTE PARTICULAR QUESTIONS]
-
- 14 In general, the respondent's cooperation during the interview was ...
- Very good 1
 Good 2
 Fair 3
 Poor 4
 Very poor 5
- 15 Was the respondent willing to complete the contact name and tracking information?
- Yes, completed 1 ASK I5a

 No, refused (GIVE DETAILS) 2 GO TO I6 CHECK

 Other (SPECIFY) 3

- 15a Did respondent give a mobile phone number and/or an email address?
CODE ALL THAT APPLY
- Mobile number given 1
 Email given 2
 Neither given 3
- 16 Did the respondent have any of the following problems which may have affected the interview?
- | | | Yes | No |
|----|---------------------------------|-----|----|
| a) | Poor eyesight (blindness) | 1 | 2 |
| b) | Hearing problems | 1 | 2 |
| c) | Reading difficulties | 1 | 2 |
| d) | English was 2nd language..... | 1 | 2 |
| e) | Other language problems..... | 1 | 2 |
| | None of these | 1 | |
- 17 Was an interpreter used?
- Yes 1 ANSWER I8
 No 2 GO TO I9

18 **WRITE IN PERSON NUMBER OF INTERPRETER FROM HOUSEHOLD GRID OR 00 IF NOT IN HOUSEHOLD**

--	--

19 Are there any ambiguous or conflicting situations in this interview that you feel we should know about.

Yes 1 **GO TO I9a**
 No 2 **GO TO I10**

19a **WRITE IN:**

110 If this respondent was presented with information from their last interview e.g. job description or previous benefits received how did they react?
CODE ALL THAT APPLY

No fed-forward information 00 **GO TO I11**

- a) Found it easier 1
- b) Found it more difficult 2
- c) Surprised we knew it 3
- d) Confused 4
- e) Concerned about the confidentiality of their information 5
- f) Expected us to know it 6
- g) Said was a good idea 7
- h) Said it was a bad idea 8
- i) Reluctant in clarifying 9
- j) Or did the respondent become uncooperative 10
- k) Other (**WRITE IN**) 11

l) Made no difference 12

111 Do you have any further remarks that may help to clarify any problems arising during processing? Is there anything the Research Centre should be aware of for contacting the respondent again in the future?

Yes 1 **GO TO I23a**
 No 2 **END**

111a **WRITE IN:**

Self-completion question for respondents at wave 16

Next, we would like to ask you about the way we conduct interviews. Sometimes, we might remind you of an answer you provided in a previous interview, to see if anything has changed. Please tick the number which best describes how unhappy or happy you are about us using your previous answers in this way.

1 = NOT HAPPY AT ALL
 7 = COMPLETELY HAPPY

0	1	2	3	4	5	6	7
Never interviewed before	Not happy at all						Completely happy

APPENDIX C

Variables for wave 16 feed forward file

1. Variables to be supplied by ISER

Previous wave reference period

The reference period is defined as starting at INTDATE (date of previous interview)

IF full or telephone interview in previous year INTDATE = date of last interview (t-1)

IF not full or telephone interview in previous year (t-1), INTDATE = date of full/telephone interview at t-2

IF no full or telephone interview in past two years (t-1 or t-2) INTDATE = September 1st 2005

INTDATE will be supplied as three numeric fields.

IF the respondent has not been interviewed in the past two years their fed-forward variables will be blank in all cases apart from the finance section income sources variables where responses from t-3 are included.

ISER will supply numeric variables in all cases apart from the text descriptions of occupation, industry and employer name. Where a text fill is required, this is indicated but this needs to be generated within the CAPI script.

Text fills for INTDATE should use words e.g. '15th November 2005' instead of numbers '15/11/2005' if possible.

Telephone interviews at t-1: use information from telephone interview for full interview in following year

Telephone interviews at t: use DI

Proxy interviews at t or t-1: no use of DI or feeding forward of information for DI in following year

INTT1	Full or telephone interview at previous wave (t-1) =1, 0 otherwise
INTT2	Full or telephone interview at t-2 but no interview at t-1 =1, blank if INTT1=1, 0 if neither
INTDATE	Date of previous interview (t-1 or t-2 if not interviewed at t-1 or 1 st September 2005 if not interviewed at t-1 or t-2)
EMPY	In employment at previous interview =1 (E1 =1 or E2=2 at previous interview), 0 otherwise
Note: If EMPY=0 all of the following variables for the employment section will be blank.	
Y5	Valid occupational description and valid SOC code =1, 0 otherwise
OCCUP	Text of previous interview occupation, blank if Y5=0
Y5SOC	Previous wave SOC code, blank if Y5=0
Y6	Valid industry description and valid SIC code =1, 0 otherwise
INDUS	Text of previous wave industry description, blank if Y6=0
Y6SIC	Previous wave SIC code, blank if Y6=0
Y6a	Valid employer/trading name=1, 0 otherwise
EMPLOYER	Text of previous wave employer/trading name, blank if Y6A=0
Y7	Valid employment status from previous wave=1 (E7=1 or E7=2 at previous interview), 0 otherwise

JBSEMP	Text fill employment status use label 1 = 'an employee'
--------	------------------------------------------------------------

	2 = 'self-employed' Blank if Y7=0
Y8	Valid managerial duties from previous interview = 1 (E8 = 1, 2 or 3 at previous interview), 0 otherwise
MANAG	Text fill managerial responsibilities use label, blank if Y8=0 1 = 'A manager' 2 = 'A foreman/supervisor' 3 = 'NOT a manager or supervisor'
Y9	Valid information on type of organisation from previous interview =1 (E9 = 1 thru 7 at previous interview), 0 otherwise
SECTOR	Text fill sector use label, blank if Y9 = 0 1 = 'a private firm, company, or plc' 2 = 'the Civil Service or central government (but not armed forces)' 3 = 'Local government or a town hall (including local education, fire, police)' 4 = 'the National Health Service or State Higher Education (including polytechnics)' 5 = 'a nationalised industry' 6 = 'a non-profit making organisation (including charities, co-operatives etc)' 7 = 'the armed forces'
Y10	Valid information on size of workplace from previous interview = 1 (E10 = 1 thru 9 at previous interview), 0 otherwise
SIZE	Text fill size of workplace use label, blank if Y10 = 0 1 = '1 - 2' 2 = '3 - 9' 3 = '10 - 24' 4 = '25 - 49' 5 = '50 - 99' 6 = '100 - 199' 7 = '200 - 499' 8 = '500 - 999' 9 = '1,000 or more'

Earnings (E20 – E31)

General issues:

Calculate for all respondents with full or telephone interview at t-1

No feed forward amount if period is 'other' at t-1

Use cases with valid values only i.e. exclude DK/REF/missing cases from calculations

Only feed forward information from t-1, never from t-2

wNHRPAY and wGHRPAY are fed-forward in pence (e.g. £8.52 per hour is 852). NHRPAY and GHRPAY should similarly be returned as pence. All other monetary values are in pounds (with no pence field)

Usual net pay t-1 (note – use standardised period of weeks from UDB)

wUPAYN if E26=2 & E29=2 or 3 & E27>0 & E28>0 & E28<=5: (E27/E28)
if E26=1 & E22>0 & E23>0 & E23<=5: (E22/E23)
if E26=1 & E20>0 & E22dk=0: (E20/E21)
Otherwise: -1

Usual gross pay t-1 (note – use standardised period of weeks from UDB)

wUPAYG if E26=2 & (E29=1 or E29==3) & E28>0 & E27>0: (E27/E28)
if E26=1 and E20 > 0 and (E21 >0 and E21 <=5) : (E20/E21)
Otherwise: -1

Total hours t-1

wTOTHRs if E11>0 & E13>0: E11 + E13
if E11>0 : E11

Otherwise: -1

Net hourly pay t-1 (in pence)

wNHRPAY = wUPAYN*100/wTOTTHRS if wUPAYN>0 & wTOTTHRS>0

Gross hourly pay t-1 (in pence)

wGHRPAY = wUPAYG*100/wTOTTHRS if wUPAYG>0 & wTOTTHRS>0

Net pay amount t-1

wAMTN if E26=1:E22

if E26=2 and E29=2: E27

Otherwise: -1

Net pay period t-1

wPERIODN if E26=1 and E23= 1 thru 5:E23

if E26=2 and E23= 1 thru 5:E28

Otherwise: -1

note – wPERIODN text fill labels

1 'Week'

2 'Fortnight'

3 'Four weeks'

4 'Calendar month'

5 'Year'

Gross pay amount t-1

wAMTG if E26 =1:E20

if E26 =2 and (E29=1 or E29==3): E27

Otherwise: -1

Gross pay period t-1

wPERIODG if E26 = 1 and E21=1 thru 5: E21

if E26 = 2 and E21=1 thru 5: E28

note – wPERIODG text fill labels

1 'Week'

2 'Fortnight'

3 'Four weeks'

4 'Calendar month'

5 'Year'

Current activity at previous interview (t-1 or t-2 if no interview at t-1)

ACTT1 If had current job at previous interview (E1=1 or E2=1) and was not a student (J6 ne 7),

ACTT1 = E7

Else if no current job at previous interview ACTT1=J6

1 'self-employment'

2 'employment'

3 'unemployment'

4 'retirement'

5 'maternity leave'

6 'family care'

7 'full time student'

8 'long term sickness'

9 'on a government training scheme'

Otherwise: -1

YJ1

Valid retirement date from previous interview = 1, 0 otherwise
(A valid date must have a minimum of a valid year)

J1RETD

Day of retirement, blank if YJ1 = 0

J1RETM Month of retirement, blank if YJ1 = 0

J1RETY Year of retirement, blank if YJ1 = 0

SOURCE1 to SOURCE12 Non-employment income sources (t-1,t-2,t-3). Max 12 sources. Each source variable will contain the code for that income type as below.

Text fills for SOURCE1 thru SOURCE12

01 "national insurance (retirement) pension"

02 "a pension from a previous employer"

03 "a pension from a spouse's previous employer"

04 "a private pension or annuity"

05 "a widow's or war widow's pension"

06 "a widowed mother's allowance"

07 "pension credit"

16 "severe disablement allowance"

18 "industrial injury or disablement allowance"

26 "the care component of disability living allowance"

27 "the mobility component of disability living allowance"

28 "disability living allowance"

19 "attendance allowance"

21 "invalid care allowance"

22 "war disability pension"

25 "incapacity benefit"

32 "income support"

42 "job seeker's allowance"

35 "child benefit"

36 "lone parent child benefit"

37 "working tax credit"

39 "housing benefit/ rent rebate or allowance"

40 "council tax benefit"

43 "child tax credit"

51 "educational grant"

52 "trade union or friendly society payments"

53 "maintenance or alimony"

54 "payments from a family member not living with you"

55 "rent from boarders or lodgers living with you"

56 "rent from other property"

57 "foster allowance"

58 "sickness or accident insurance"

YF14 Valid year for private personal pension = 1 (if before July 1st 1988), 2 (if since July 1st 1988 or both), 0 otherwise

PPPD1 Year private personal pension taken out (before July 1st 1988)

PPPD2 Year private personal pension taken out (July 1st 1988 or after (inc 'both'))

2. Variables to be created during the interview

Earnings (E20 – E31)

General issues:

In calculations of pay and hours use cases with valid values only i.e. exclude DK (8) /REF (9)/ and missing CAPI to calculate hourly pay to trigger edit check. The bands suggested below would mean that about 10% of respondents would be asked the edit check question.
Identify job change from the current employment questions.

SAMEJB IF (E5P = 1 or E5R =1) AND (E6aP=1 or E6aR =1 or E6aRN= 1) SAMEJB=1
Otherwise SAMEJB=2

Usual net pay: (to calculate recode E28 and E23 to: 1 = 1, 2 = 2, 3= 4, 4 = 4.3, 5 = 52)
UPAYN if E26=2 & E29=2 or 3 & E27>0 & E28>0 & E28<=5: (E27/E28)
if E26=1 & E22>0 & E23>0 & E23<=5: (E22/E23)
if E26=1 & E20>0 & E22dk=0: (E20/E21)
Otherwise: -1

Usual gross pay (to calculate recode E28 and E21 to: 1 = 1, 2 = 2, 3= 4, 4 = 4.3, 5 = 52)
UPAYG if E26=2 & (E29=1 or E29==3) & E28>0 & E27>0: (E27/E28)
if E26=1 and E20 > 0 and (E21 >0 and E21 <=5) : (E20/E21)
Otherwise: -1

Total hours:
TOTHRS if E11>0 & E13>0: E11 + E13
if E11>0 : E11
Otherwise: -1

Net hourly pay: (in pence)
NHRPAY = UPAYN*100/TOTHRS if UPAYN>0 & TOTHRS>0

Gross hourly pay: (in pence)
GHRPAY = UPAYG*100/TOTHRS if UPAYG>0 & TOTHRS>0

Net pay amount t-1
E22AMT if E26=1:E22
if E26=2 and E29=2: E27
Otherwise: -1

Net pay period t-1
E23PERIOD if E26=1 and E23 = 1 thru 5:E23
if E26=2 and E23 = 1 thru 5: E28

note – E23PERIOD text fill labels

1	'Week'
2	'Fortnight'
3	'Four weeks'
4	'Calendar month'
5	'Year'

Gross pay amount t-1
E20AMT if E26 =1:E20
if E26 =2 and (E29=1 or E29==3): E27
Otherwise: -1

Gross pay period t-1
E21PERIOD if E26 = 1 and E21 = 1 thru 5: E21
if E26 = 2 and E21 = 1 thru 5: E28

note – E21PERIOD text fill labels

1	'Week'
2	'Fortnight'
3	'Four weeks'
4	'Calendar month'
5	'Year'

Text fill E30b: = 'UP' if (SAMEJB = 1 AND (NHRPAY >1.4 * wNHRPAY)), OR IF (SAMEJB=2 AND
NHRPAY > 1.6 * wNHRPAY))
= 'DOWN' if (NHRPAY <0.7 * wNHRPAY)

Text fill E30d: = 'UP' if (SAMEJB = 1 AND (GHRPAY >1.4 * wGHRPAY)), OR IF (SAMEJB=2 AND
GHRPAY > 1.6 * wGHRPAY))
= 'DOWN' if (GHRPAY <0.7 * wGHRPAY)