

Examining the Impact of Event History Calendar Interviewing
on Data Quality from Disadvantaged Respondents

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Event History Calendar (EHC) interviewing methodologies have been advocated for the high quality retrospective reporting that is elicited from their use (Belli, 1998; Belli and Callegaro, in press; Belli et al., in press; Caspi et al., 1996; Freedman et al., 1988; Martyn and Belli, 2002; Yoshihama et al, 2005). For theoretical reasons, EHCs are expected to provide advantages to data quality by encouraging respondents to use idiosyncratic cues available in the chronological and thematic structures of autobiographical memory (Belli, 1998). In a direct experimental comparison between EHC and traditional standardized conventional questionnaires (CQ) methods, Belli et al (2001) found that the EHC led to higher quality survey retrospective reports for a reference period of one to two years previously on variables that measure the quantity and frequency of social and economic behaviors. In this experiment, telephone interviews were conducted during 1998 on events that occurred during the calendar years of 1996 and 1997. Using data from the same respondents collected in 1997 on events reported during 1996 as a standard of comparison, the quality of retrospective reports on 1996 events from the 1998 administration of EHC and CQ interviews was assessed. Specifically, the EHC outperformed the CQ in eliciting reports of whether moved, number of jobs, amount of income, and the number of weeks not working due to unemployment, the illness of oneself, and the illness of another. More recently, Belli et al (in press) have compared EHC and CQ CATI interviews to test the accuracy of life course reports and have found advantages of EHC interviews in most, but not in all, outcome measures.

In an extension of the analyses of Belli et al (2001), Belli and Stafford (2006) sought to determine any advantages for EHC interviews in the retrospective reporting of

when events happened. These analyses used the “month strings” that were collected in the 1997 interview, in which respondents reported in which specific calendar months experiences occurred, as the standard of comparison to test the quality of retrospective reports collected during 1998 about specific months in 1996 that one had been working, unemployed, out of the labor force, and in receipt of AFDC and food stamps. Results did not unequivocally demonstrate advantages to EHC interviewing. The EHC led respondents to significantly better match specific months during 1996 of being employed and unemployed between the 1998 and 1997 interviews, but the CQ led to significantly better matches for receipt of AFDC. Matches for months being out-of-the labor force and for months of receipt of food stamps did not significantly differ between conditions.

The main aim of the analyses reported below is to assess whether EHC interviews provide better or worse reporting of key social and economic events in comparison to standardized CQ interviews for disadvantaged respondents. The data source for these analyses again comes from the data collected in the experiment of Belli et al. (2001). Frankly, any theoretical speculation regarding the differential roles that are played between EHC and CQ interviews currently rest on thin ice. One possibility is that because disadvantaged respondents live more chaotic lives in comparison to nondisadvantaged ones—in terms of having a greater number of social and economic transitional events—EHC interviews will provide benefits by using as cues any reported transitional events in the remembering of other ones. Another possibility has been suggested by the work of Callegaro et al (2007), in which EHC interviews promoted heightened levels of rapport among African American respondents, which may translate into heightened motivation in responding. Although theoretically there are not many

reasons to predict differences between EHC and CQ interviews based on the characteristics of respondents, as a practical matter, any new implementation of EHC interviewing methods in the SIPP raises concerns about the effectiveness of such methods with disadvantaged groups.

Method

The data reported in this paper were collected in the same experiment reported by Belli et al. (2001). In this experiment, a random subset of participants from the Panel Study of Income Dynamics, which at the time of the experiment had been conducting annual interviews with individuals from a nationally representative sample of United States households, were selected for interviews via telephone during a 6 week span from May through June of 1998. Respondents and 20 interviewers were randomly assigned to Event History Calendar (EHC; N =309; 84.4% cooperation rate) and conventional questionnaire (CQ; N = 307; 84.1% cooperation rate) interviewing methods. Both EHC and CQ consisted of paper and pencil instruments. The EHC instrument consisted of an 18 x 28-inch sheet that displayed timelines for the calendar years of 1996 and 1997 on such topics as places of residence, members of the household, spells of being employed, unemployed, and out of the labor force, and receipt of ADC/AFDC and food stamps (see Figure 1). A parallel CQ instrument asked about the same topics within the same reference period, but used a traditional standardized interviewing format. Before their recruitment, all interviewers had received general interviewing training. In addition, interviewers in both methods received 15 hours of study specific training spread evenly over 3 days. For both interviewing methods, training emphasized the use of interviewing techniques designed to maximize reporting accuracy. Of course, only interviewers in the

EHC condition were trained to use cueing strategies, facilitated by EHC design, which tap into the chronological and thematic associations contained within the structure of autobiographical memory (Belli, 1998; Belli et al., 2001). Interviewing minutes did not significantly differ between methods (EHC \underline{M} = 17.1, SE = 0.55; CQ \underline{M} = 15.9, SE = 0.55), $t(611) = 1.58$.

Interviewers using both EHC and CQ instruments administered questions that were able to assess 1) whether specific events occurred during 1996 (i.e., whether one worked for pay, changed residence, had household members moving in or out, received food stamps, and received AFDC), 2) the number of weeks during 1996 one reported working, being unemployed, and out of the labor force, and the number of weeks missing work due to vacation and due to illness of oneself or another (with the EHC, a third-of-a-month strategy was used so that annual weeks could be computed via algorithm), 3) the amount of income received in 1996, and 4) the specific months during 1996 in which one reported being employed, unemployed, out of the labor force, and in receipt of food stamps and AFDC payments. Appendix A provides question wording used in the EHC interviews, and Appendix B provides the wording for CQ interviews. Although there were 616 respondents that were interviewed (309 EHC and 307 CQ), because of missing values, the responses of 575 respondents (287 EHC and 288 CQ) were analyzed in the results that are reported below.

Results

Outcome Measures of Data Quality

There were a total of 15 outcome measures of data quality that compared the level of correspondence of the EHC and CQ experimental retrospective reports of 1996 events

that were collected in 1998 against the reports of 1996 events collected in the core PSID interview administered in 1997. The respondent reports from the 1997 PSID core interview about 1996 events serves as a standard of comparison which were used to assess the quality of the 1997 experimental reports. The logic of using 1997 core PSID data as a standard of comparison rests with the assumption that, everything else held constant, retrospective reports for a more recent reference period ought to reflect the actual events that transpired more accurately than those from a more remote one, although the standard of comparison reports, like all retrospective reports, will contain response errors of their own. All of these 15 outcomes are provided in Table 1, alongside the nature of the data that resulted from the correspondence between the experimental reports and the standard of comparison reports.

For eight of the outcome measures, the number of weeks of activity in 1996 in both experimental and standard reports were collected, allowing analyses based on the absolute value of the differences between experimental and standard reports, and the signed differences between these reports. With income, both absolute and signed differences between experimental and standard reports were calculated on amount reported as received (in dollars) in 1996. Whereas analyses based on absolute differences allows an assessment of overall error in the experimental reports, analyses of signed differences permits an assessment of under- and over-reporting in the experimental reports.

For 6 of the outcomes, whether or not at least one event of the same type during 1996 was similarly reported in the experimental and standard interviews were compared. These annual agreement measures were handled in this dichotomous manner for two

reasons. For receipt of food stamps and AFDC, the standard of comparison did not collect information on how long these entitlements were received in 2006, but rather only collected, on an annual basis, whether the entitlement had been received or not. For reports of the number of jobs held and residential moves during 1996, and the number of persons moving in and out of the household in 1996, as the counts were too low in frequency to treat the differences as a continuous measure in absolute differences, a dichotomous measure of agreement was assessed. However, for the number of jobs, and the number of household members moving in and out during 1996, there was sufficient variance in reports to conduct potentially meaningful analyses on signed differences. For 5 of the outcome measures, there was the ability to assess the agreement between experimental and standard interviews for the specific months in which events had been reported to occur.

Linear regression models (see below) were conducted for those outcome measures that provided absolute and signed differences, and logistic regression models on those that provided indications of annual agreement. Table 2 provides means and standard deviations for those outcome measures that were tested with linear regression models, and Table 3 provides the number and percentage of respondents who indicated that they had experienced at least one instance of each status for those outcome measures tested with logistic regression models.

Measures of being Disadvantaged

Four predictor variables were considered as indications of being disadvantaged or not. Two are measures of SES: income to needs and years of education. Both are continuous variables. Income to needs is the ratio of total family income divided by the

U.S. Census's needs variable. If the income to needs ratio is less than 1.0, then the family is considered to be in poverty. Education is measured as the number of years (highest grade) of schooling received by respondents. Panel A of Table 4 presents the descriptive statistics for both of these continuous predictor variables. The third and fourth measures of being socially disadvantaged were dichotomous characteristics of respondents. Race (non-white, white) and gender (female, male) served as proxies for racial and gender discrimination, respectively. The sample consisted of 269 non-whites and 306 whites, and 358 females and 217 males.

Control Variables

In both linear and logistic multiple regression models (see below), four control variables, two continuous and two dichotomous, were included in the analyses. The continuous variables were interviewer and respondent age (in years); Panel B of Table 4 presents the descriptive statistics for these two control variables. Also included were interviewer race (there were 4 non-white and 16 white interviewers) and interviewer gender (there were 12 female and 8 male interviewers).

Regression Analyses

All absolute and signed difference outcome measures were subjected to linear multiple regression analyses, and all annual agreement outcome measures were assessed via logistic multiple regression analyses. In these models, terms for all predictor and control variables were entered as well as a term for method (EHC, CQ), and for each model separately, an interaction term of method with one of the predictor variables was also entered. The main objective was to determine whether an interaction exists between interviewing method and each of the measures of being disadvantaged indicating that the

method of interviewing differentially impacted those respondents who were more disadvantaged in comparison to those that were less so.

Because of the exploratory nature of these analyses, a liberal $\alpha = .10$ was used to report an interaction as being statistically significant. I was looking for patterns of similar interactions across variables, and not any specific interaction for a single variable, to determine whether one condition was more beneficial for more disadvantaged respondents. Hence, the use of a liberal criterion of statistical significance is justifiable. Results for absolute differences and annual agreements are most easily interpretable as these interactions provide an indication of whether one condition led to heightened levels of response error for more disadvantaged respondents, and hence, these results are reported first. Of the 60 tested models on absolute differences and annual agreements, 14 revealed significant interaction effects, with eight of these interactions involving condition and income to needs. Figure 2 reveals that six of these interactions show that the EHC method led to less response error among respondents with lower income to needs ratios (predicted values are depicted for a income to needs ratio one standard deviation unit below the mean, 0.14, and one standard deviation unit above the mean, 7.2), including annual weeks of employment, out of the labor force, and missing work due to self illness, amount of income, and annual agreement of jobs and household members moving in. Figure 3 reveals that two interactions showed the opposite pattern, in which the CQ method led to less response error among respondents with lower income to needs ratios: for annual agreement of residential moves (although error was low for all conditions) and receipt of AFDC. There was one significant method by education interaction; Figure 4 reveals that the CQ method had less error among those respondents

who received less education for agreement reports of household members moving out. There were four significant interactions between method and gender, in three of these models the EHC led to less error among women respondents in comparison to the CQ, including annual weeks out of the labor force, missing work due to one's own illness, and missing work for any reason (see Figure 5). With one of these models, the interaction was due to the CQ method leading to less error in job agreement in comparison to the EHC method among men, and in which, both conditions led to equivalent levels of error among women (see Figure 6).

For the most part, the 48 linear multiple regression analyses of signed differences did not lead to significant interactions that revealed clear patterns. There were five significant interactions of method with income to needs; for those respondents with lower income to needs ratios, in two models the EHC led to underreporting in comparison to the CQ, in two models the EHC led to overreporting relative to the CQ, and in one model there was no difference between methods (the interaction was due to heightened overreporting in the EHC for respondents higher in income to needs ratios). Of the six remaining significant interactions that included signed differences, only one is noteworthy. In signed differences of weeks missing work due to the illness of another, the EHC method led to underreporting for nonwhite respondents, whereas the CQ method led to neither under or overreporting among nonwhites.

Analyses of Which Months

The above analyses examined differences between EHC and CQ methods with regard to whether or how much correspondence existed between experimental and standard of comparison reports for events that were reported to have occurred during the

calendar year of 1996. The analyses reported in this section assessed whether the timing of the experimental reported corresponded to the standard of comparison reports with regard to which months during 1996 a status had been reported by respondents. For reports of employment, unemployment, out of the labor force, and receipt of food stamps and AFDC during 1996 (see Table 1), EHC and CQ experimental reports were tallied across respondents and for each month during 1996 on whether each status had been reported as occurring or not in both the experimental and standard of comparison reports. Kappa indices were then computed to determine the level of monthly agreement between experimental and standard of comparison interviews regarding whether or not events were reported to have occurred. Two sets of analyses were conducted. In one set of analyses, a median split of income to needs was used to define respondents low and high in this variable, and then income to needs was crossed with interviewing methods (EHC, CQ) in computing kappa indices for each month. In the second set, gender and interviewing method was crossed. In both sets of analyses, goodness of fit significance tests were conducted to determine whether the number of months of agreement was significantly higher in one method in comparison to the other, separately for respondents low and high in income to needs, and separately for women and men. These goodness of fit significance tests assume that if there were no differences between conditions, that the number of months of higher kappa indices would be evenly split between conditions. Because of extremely low numbers of participants reporting having a status in some of the months, analyses for high income to needs respondents for unemployment and for receipt of food stamps and AFDC were not conducted, nor were analyses conducted for unemployment and receipt of AFDC for men.

With respondents low in income to needs, the EHC had a significantly higher number of months of correspondence as measured by kappa indices for employment ($\chi^2(1) = 13.72, p < .001$), unemployment ($\chi^2(1) = 4.92, p = .03$), and out of the labor force ($\chi^2(1) = 6.23, p = .01$), whereas the opposite pattern was found for receipt of food stamps ($\chi^2(1) = 3.77, p = .05$) and AFDC ($\chi^2(1) = 13.72, p < .001$), in which the CQ had significantly higher number of months of correspondence in comparison to the EHC.

With respondents high in income to needs, the CQ had a significantly higher number of months of correspondence in comparison to the EHC in reports of being out of the labor force ($\chi^2(1) = 13.72, p < .001$), whereas for employment, the interviewing methods did not significantly differ ($\chi^2(1) = 0.31, ns$). The kappa indices that underlie these analyses are presented in Figure 7.

With female respondents, only employment revealed a significantly higher number of months that corresponded with the standard of comparison in one interviewing method in comparison to the other, and the EHC outperformed the CQ in this instance ($\chi^2(1) = 13.72, p < .001$). However, with food stamps, there were a higher number of months of correspondence in the CQ condition which approached a significantly different level in comparison to the EHC ($\chi^2(1) = 2.77, p = .10$). For male respondents, the EHC had a significantly higher number of months of correspondence as measured by kappa indices for employment ($\chi^2(1) = 3.77, p = .05$), whereas the opposite pattern was found for out of the labor force ($\chi^2(1) = 6.23, p = .01$) and receipt of food stamps ($\chi^2(1) = 4.92, p = .03$), in which the CQ had significantly higher number of months of correspondence in comparison to the EHC. Figure 8 depicts the kappa indices for all of the comparisons, whether significantly different between interviewing methods or not.

Discussion

Results are somewhat mixed with regard to the performance of EHC interviewing with disadvantaged populations. When significant differences did appear between interviewing methods, the EHC showed better performance among disadvantaged groups in most of these comparisons, which is especially compelling for the labor history variables. With program participation, the CQ showed consistent advantages in reports among disadvantaged groups in comparison to the EHC for the timing of receipt of benefits during 1996. Although reports of receipt of AFDC demonstrated better correspondence with whether receipt had happened within 1996 for disadvantaged respondents, the number of participants who reported receipt of AFDC was very small (between 2% and 4%, see Table 3), and so these results should be interpreted with caution. Nevertheless, the U.S. Census Bureau must be vigilant to conduct methodological tests to determine whether the poorer performance of EHC interviewing that had been observed with program participation is unique to this data set, or extend beyond this data set.

The discrepancy between reports of labor and program participation histories may hinge on two key factors. First, the maximal use of advantageous sequential and parallel probes and retrieval strategies was more available in the labor history section in comparison to the section on program participation. Whereas consistency and completeness checks were designed in the reporting of labor histories in the EHC interviews, they were not as apparent to interviewers in the collection of information concerning program participation. In the labor history domain, interviewers were trained to ensure that for any same period of time, respondents reported being in only one status,

that is, either employed, unemployed, or out of the labor force, and that for the entire 12 month reference period, there could not be any gaps in which no status was reported for any period of time. In ensuring these rules of consistency and completeness, interviewers were apparently probing respondents more thoroughly to correct for any of these problems and/or respondents were employing retrieval strategies to avoid any inconsistencies in reports. Hence, the observation of there being better data quality for reports of labor histories, especially for disadvantaged groups, is consistent with this interpretation. To improve reports of program participation with EHC interviews, it may be beneficial to maximize the cross-referencing of any reported receipt of benefits with other sections that ought to be related, such as seeking corresponding contemporaneous labor history events.

Second, the language used in the CQ program participation section asked respondents “in which months” food stamps and AFDC were received, whereas the EHC asked “when” these benefits were received. If the “in which months” language matches how the receipt of benefits is encoded and hence represented in memory, then this language will produce better recall than any language in which the months of receipt is not directly queried (Shum & Rips, Tulving & Thomson, 1973). Such a possibility would be greatly informed by methodological work in which the wordings used to introduce EHC domains on program participation is varied.

The results reported in this paper and in earlier work (Belli et al., 2001; Belli & Stafford, 2006) are limited by using core PSID interviews conducted in 1997 about 1996 events as a standard of comparison. Especially because the standard of comparison consists of retrospective reports, the types of errors in the standard are likely similar to

those that exist in the experimental EHC and CQ reports, lending a straightforward interpretation of any observed difference in correspondence with the standard between the methods of interviewing problematic at best.¹ In any methodological studies that the U.S. Census Bureau may wish to conduct, the use of archival records as a standard of comparison, such as governmental records of program participation, is strongly advised.

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¹ Although because the EHC interviewing is different than the CQ interviewing that had been administered in the standard of comparison, whereas the CQ experimental interviewing was very similar to the method of interviewing in the standard (including, at times, using the exact same question wording or nearly the same wording), any increased correspondence between EHC and standard reports relative to the CQ is more convincing of an improved method than is any increased correspondence between the CQ and the standard. The latter may be more of an indication of the reproduction of the same errors on two different occasions.

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Table 1: Outcome measures and specific dependent variables used in analyses.

Outcome measure	Absolute Differences Annual Weeks	Annual Agreement	Signed Differences Annual Weeks	Signed Differences Number	Absolute and Signed Differences Annual Amount	Which Months
Employment	X		X			X
Unemployment	X		X			X
Out of the labor force	X		X			X
Missing work being on vacation	X		X			
Missing work due to one's own illness	X		X			
Missing work due to illness of another	X		X			
Missing work due to anyone's illness	X		X			
Missing work for any reason	X		X			
Income					X	
Jobs		X		X		
Residential moves		X				
Household members moving in		X		X		
Household members moving out		X		X		
Receipt of food stamps		X				X
Receipt of AFDC		X				X

Table 2: Descriptive statistics for outcome variables tested with linear regression models by 1998 method and by reports concerning 1996 events collected during the 1997 standard of comparison interview and those collected during the 1998 experimental interviews.

Outcome measure	Method							
	Event History Calendar				Conventional Questionnaire			
	standard		experimental		standard		experimental	
	n	Mean (SD)	n	Mean (SD)	n	Mean (SD)	n	Mean (SD)
Employment ^a	268	36.85 (22.57)	267	36.01 (22.76)	267	36.51 (22.86)	262	36.68 (22.60)
Unemployment ^a	268	1.40 (6.24)	267	1.10 (5.68)	267	1.05 (5.39)	262	0.62 (3.55)
Out of the labor force ^a	268	13.83 (22.41)	267	14.81 (22.48)	267	14.44 (22.82)	262	14.41 (22.52)
Missing work being on vacation ^a	268	1.85 (3.64)	267	1.17 (1.73)	267	1.72 (2.51)	262	1.56 (2.28)
Missing work due to one's own illness ^a	268	0.64 (2.36)	267	0.66 (2.33)	267	0.94 (3.75)	262	0.70 (3.02)
Missing work due to illness of another ^a	268	0.23 (0.68)	267	0.10 (0.46)	267	0.14 (0.52)	262	0.36 (3.04)
Missing work due to anyone's illness ^a	268	0.86 (2.51)	267	0.76 (2.38)	267	1.08 (3.81)	262	1.07 (4.27)
Missing work for any reason ^a	268	2.71 (4.31)	267	1.93 (3.14)	267	2.79 (4.44)	262	2.63 (4.86)
Income	276	18503 (20361)	264	18119 (19498)	275	20191 (24431)	264	20247 (26279)
Jobs	287	1.06 (0.83)	287	1.02 (0.80)	288	1.07 (0.85)	288	0.92 (0.72)
Household members moving in	287	0.27 (0.70)	277	0.35 (0.92)	286	0.20 (0.62)	280	0.16 (0.49)
Household members moving out	287	0.23 (0.77)	277	0.25 (0.83)	286	0.19 (0.59)	280	0.22 (0.66)

^aThese measures are based on reports of weeks of activity

Table 3: Descriptive statistics for outcome variables tested in logistic regression models by 1998 method and by reports concerning 1996 events collected during the 1997 standard of comparison interview and those collected during the 1998 experimental interviews.

Outcome measure	Method											
	Event History Calendar						Conventional Questionnaire					
	standard			experimental			standard			experimental		
	Tot ^a n	Aff ^b n	Aff %	Tot n	Aff n	Aff %	Tot n	Aff n	Aff %	Tot n	Aff n	Aff %
Jobs	287	221	77.0	287	216	75.3	288	217	75.3	288	212	73.6
Residential moves	286	59	20.6	287	54	18.8	288	53	18.4	288	34	11.8
Household members moving in	287	55	19.2	277	60	21.7	286	41	14.3	280	35	12.5
Household members moving out	287	36	12.5	277	35	12.6	286	36	12.6	280	38	13.6
Receipt of food stamps	287	33	11.5	287	28	9.8	287	36	12.5	287	25	8.7
Receipt of AFDC	287	8	2.8	287	6	2.1	287	11	3.8	288	11	3.8

^aTot refers to total number of respondents

^bAff refers to those respondents who responded in the affirmative, that is, indicating at least one instance of each status during the 1996 calendar year

Table 4: Descriptive statistics on respondent and interviewer characteristics.

Variable	Valid N	Missing N	Mean	Standard Dev	Minimum	Maximum
Panel A: Predictor Variables						
Income to needs	570	5	3.67	3.53	0.003	41.44
Education	491	84	13.23	2.33	3	17
Panel B: Control Variables						
Respondent age	575	0	44.97	15.96	18	92
Interviewer age	20	0	32.50	12.85	20	59

Figure 1: Copy of paper and pencil EHC instrument.

P100 1998 Study Sample ID	Marginal Status	Pre-1996 Events	1996												1997												Pre-1997 Events
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1996 RW Date 1996 RW Date 1996 RW ID 1996 RW Start Time	Current Residence Street City State ZIP/Phone Area Spring 1996	Landmark End Time am / pm	LANDMARK EVENTS [2 1/4 years ago] [2 years ago] [1 3/4 years ago] [1 1/2 years ago] [1 1/4 years ago] [1 year ago] [9 months ago] [8 months ago]												LANDMARK EVENTS [1 1/4 years ago] [1 year ago] [9 months ago] [8 months ago]												
The Last Residence			STREET CITY STATE												STREET CITY STATE												
City State ZIP/Phone Area Spring 1996			STREET CITY STATE												STREET CITY STATE												
Household Composition			OK																								
Employment			EMPLOYMENT												EMPLOYMENT												
EMPLOYMENT SUMMARY & ANNUAL INCOME			EMPLOYMENT SUMMARY												EMPLOYMENT SUMMARY												
326. No Employees			EMPLOYMENT SUMMARY												EMPLOYMENT SUMMARY												
327. Time Away From Work			VACATION SICKLEAVE												VACATION SICKLEAVE												
328. Stocks, Bonds, ADMIRALTY & Fund Shares			ADMIRALTY FUND SHARES												ADMIRALTY FUND SHARES												

Figure 2: Significant method by income to needs interaction effects in absolute differences and annual agreement that favor EHC interviews for more disadvantaged respondents.

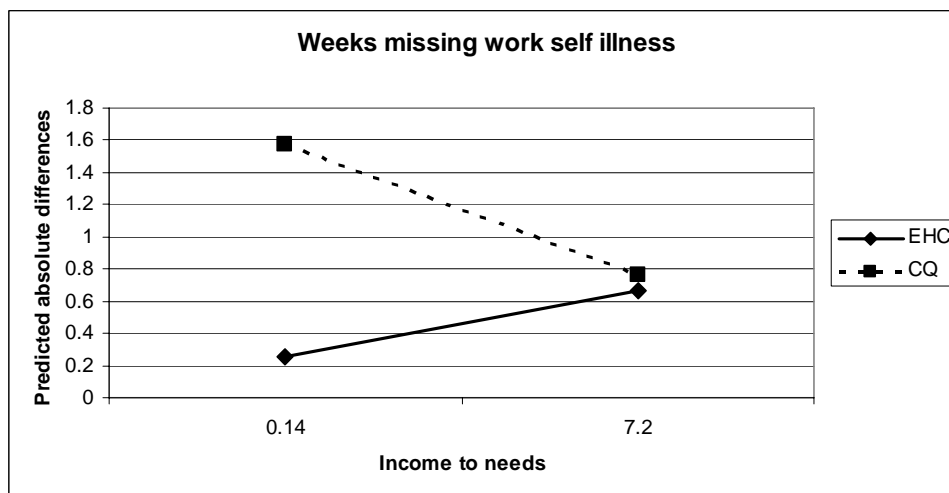
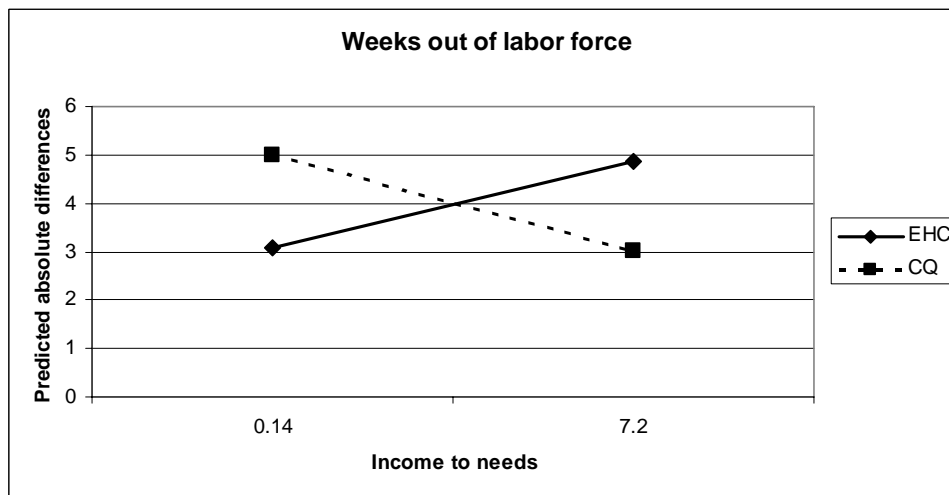
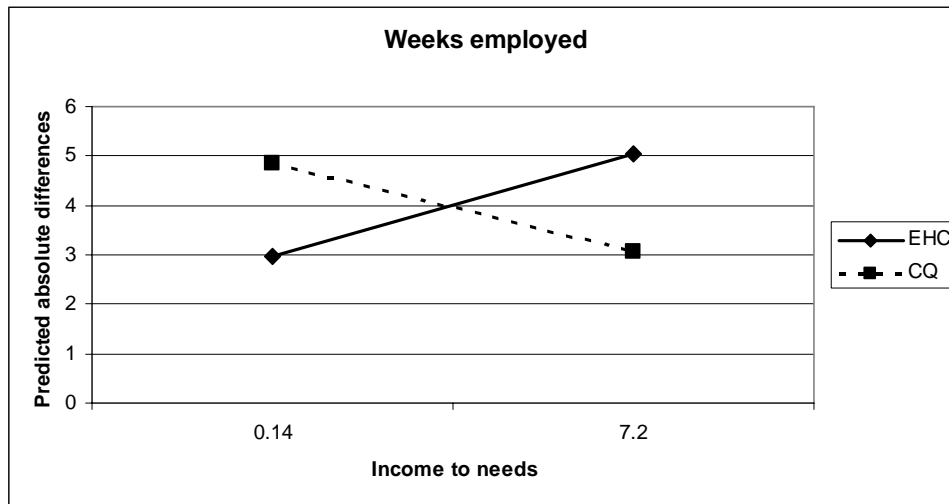


Figure 2 (continued)

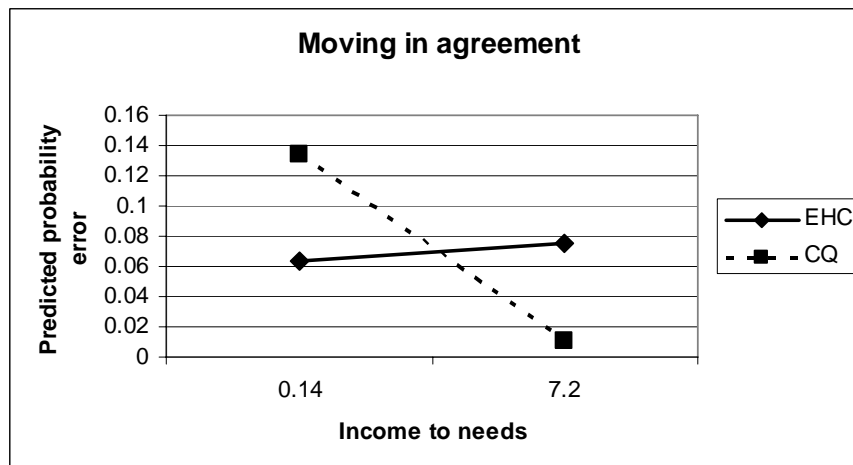
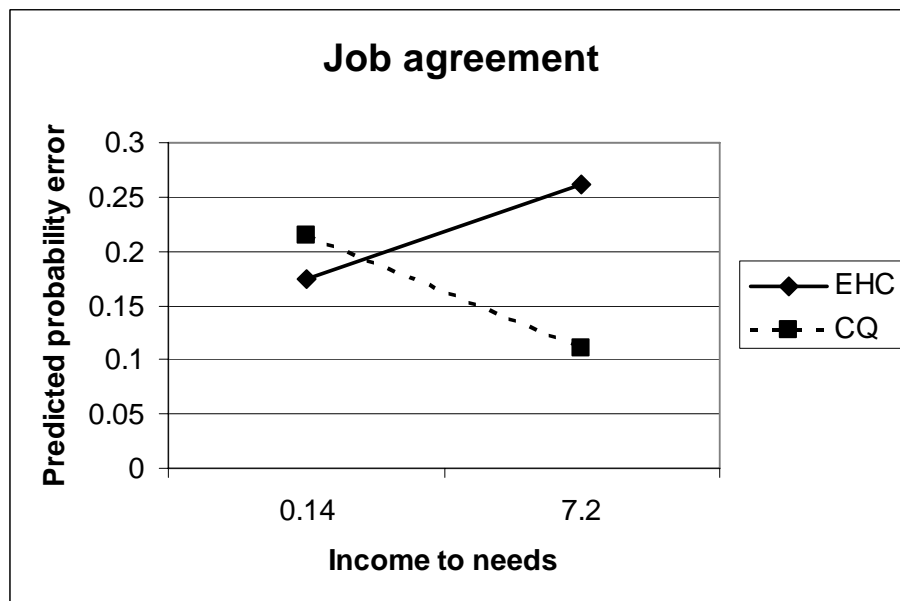
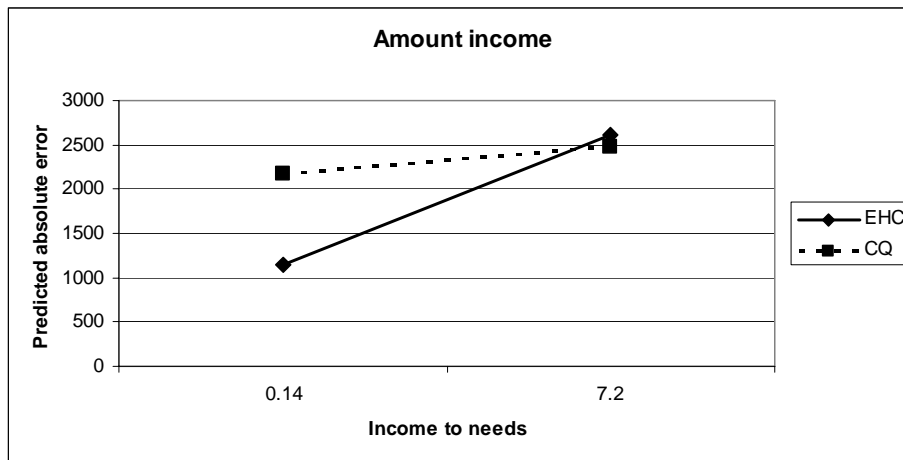


Figure 3: Significant method by income to needs interaction effects in annual agreement that favor CQ interviews for more disadvantaged respondents.

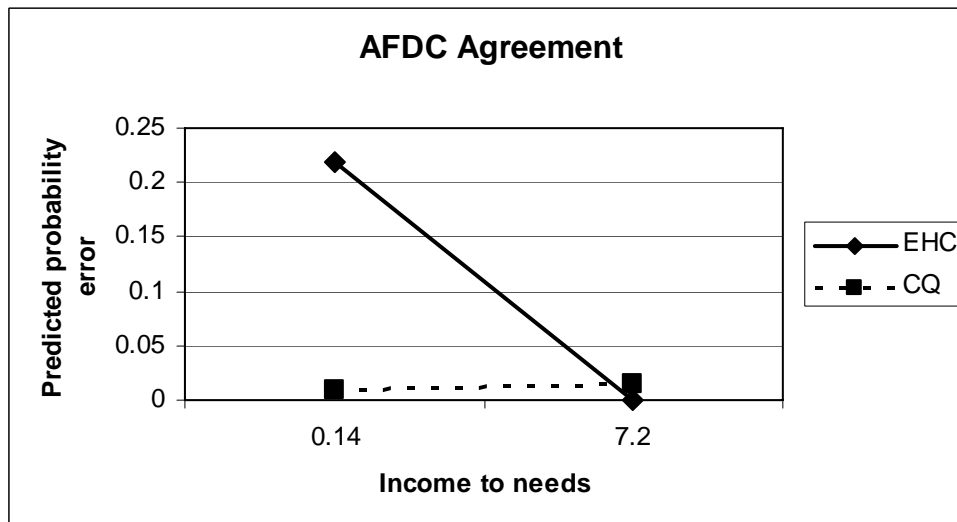
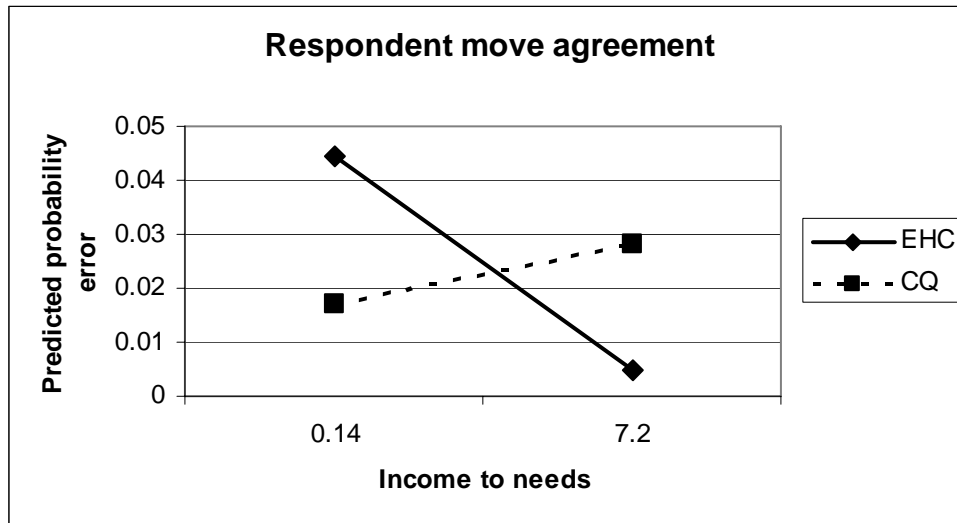


Figure 4: Significant method by years of education interaction effect in annual agreement of household members moving out.

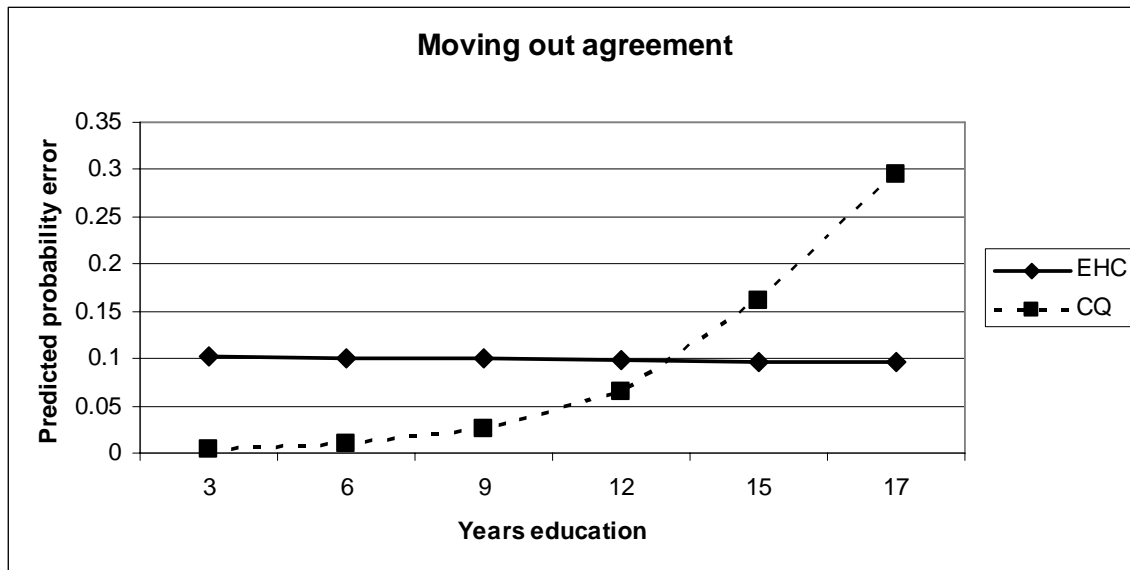


Figure 5: Significant method by respondent gender interaction effects in absolute differences that favor EHC interviews for female respondents.

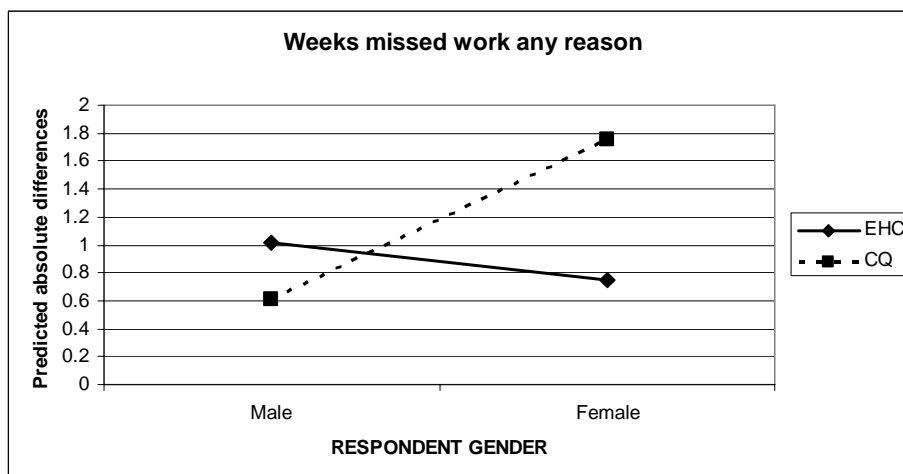
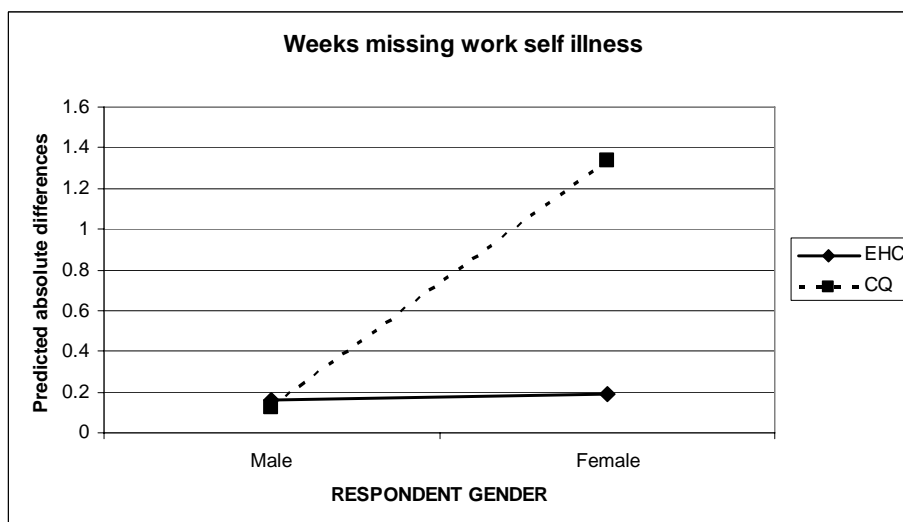
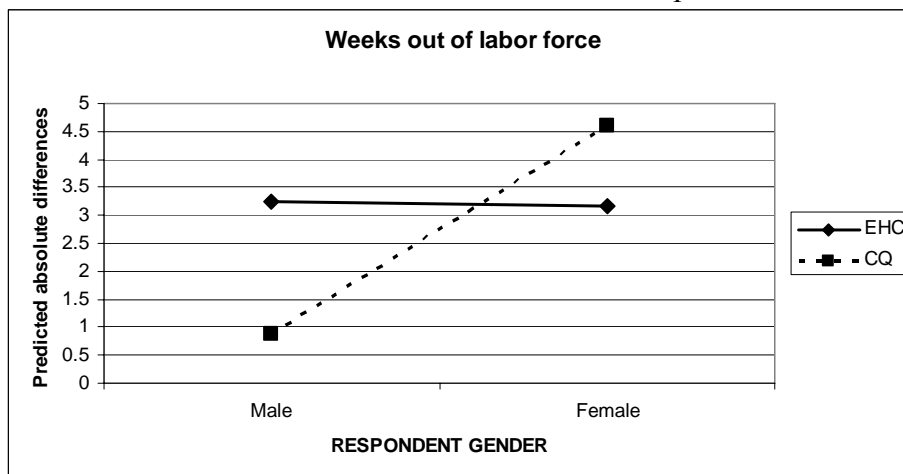


Figure 6: Significant method by respondent gender interaction effect in annual agreement that favor CQ interviews for male respondents.

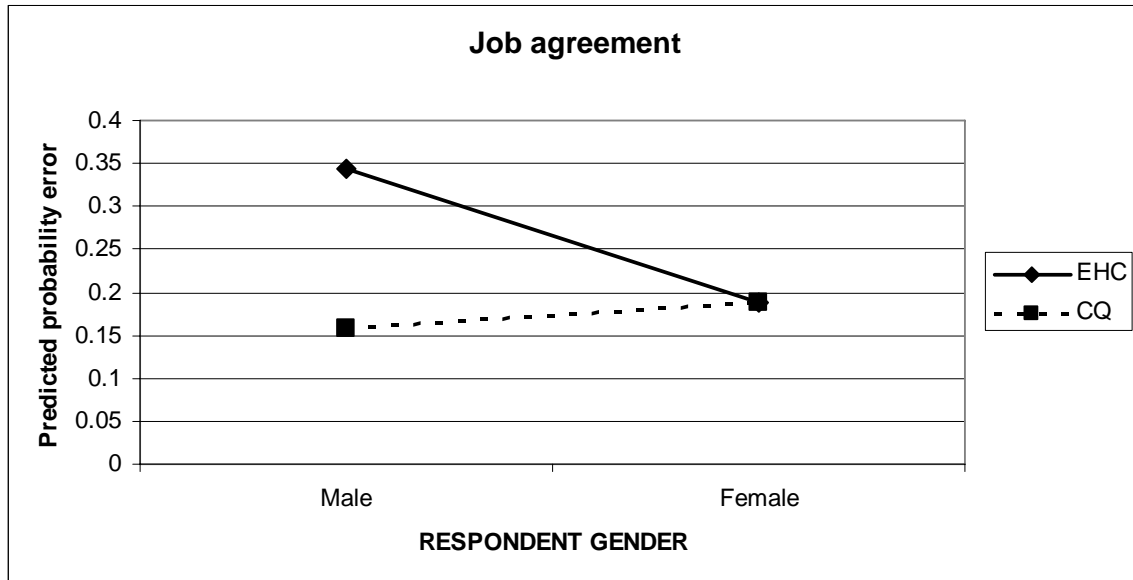


Figure 7: Monthly kappa indices of interviewing method by respondents high and low in income to needs.

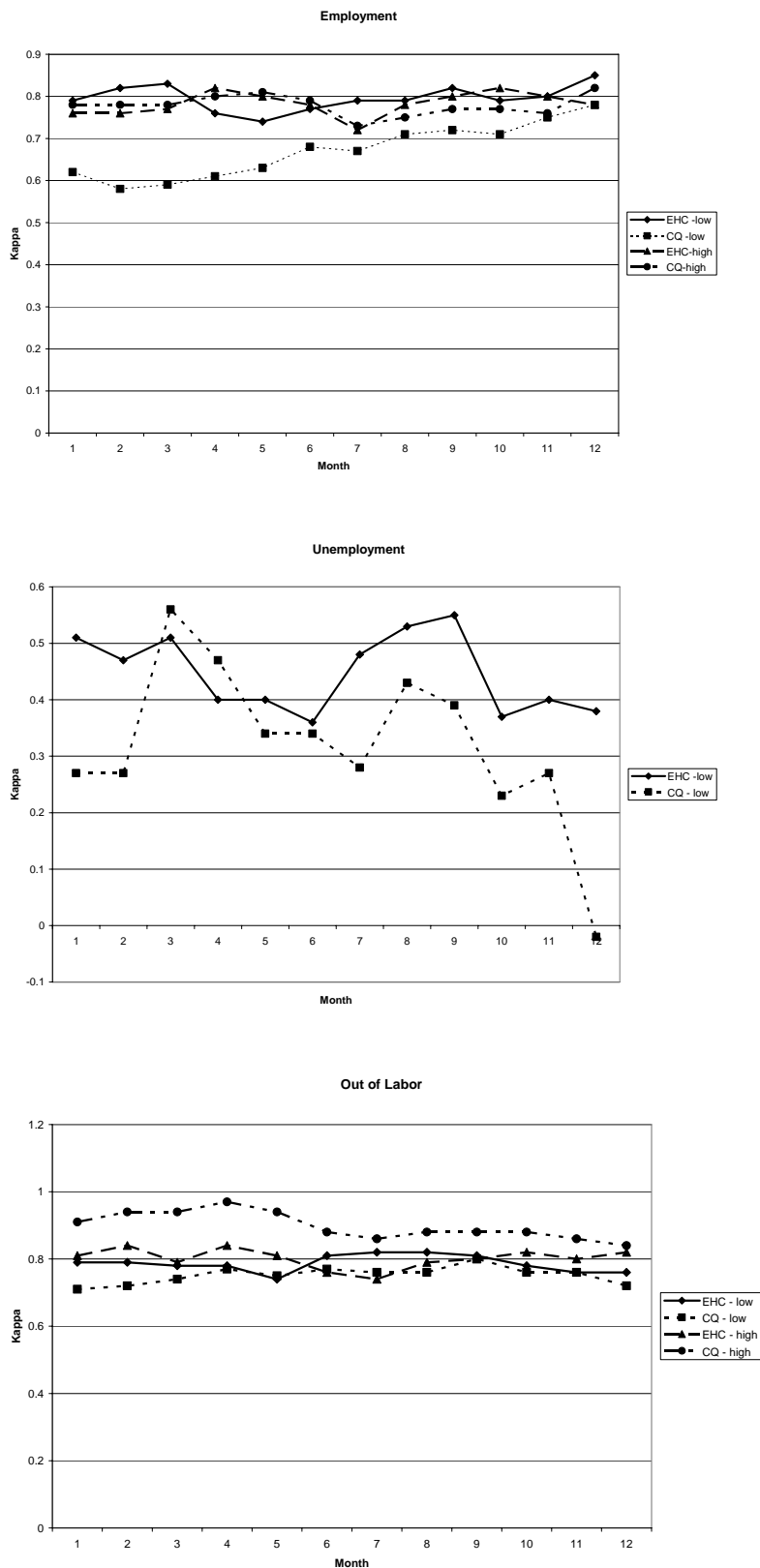


Figure 7 continued

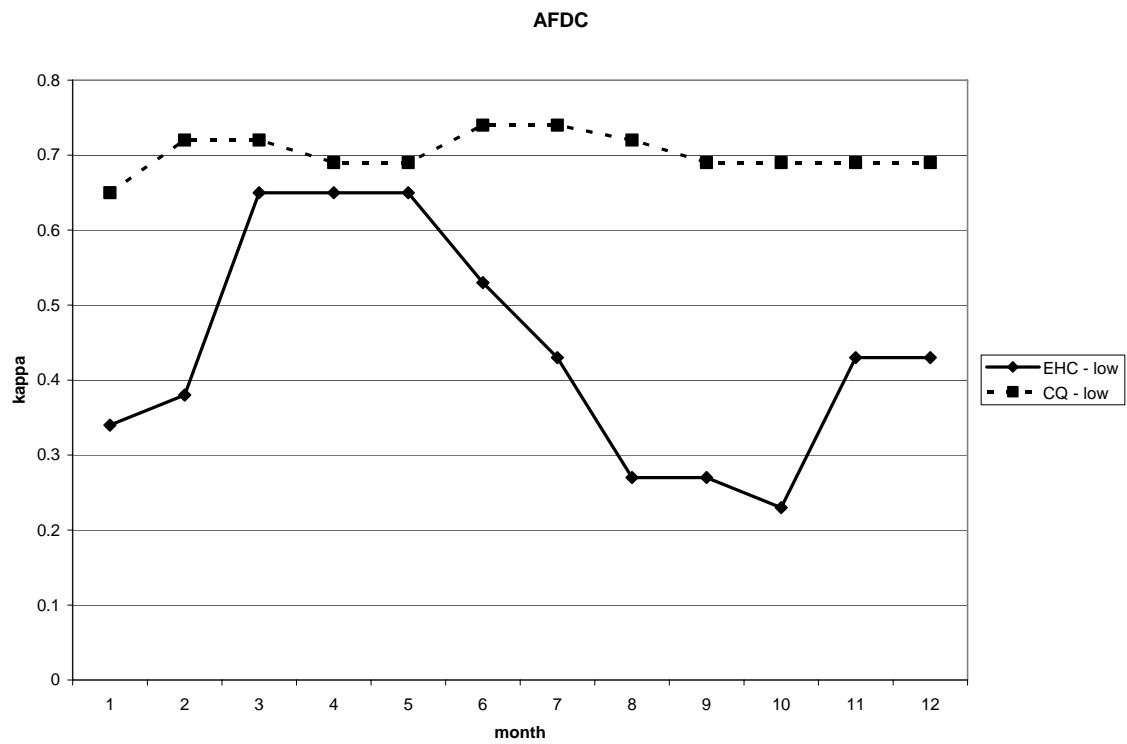
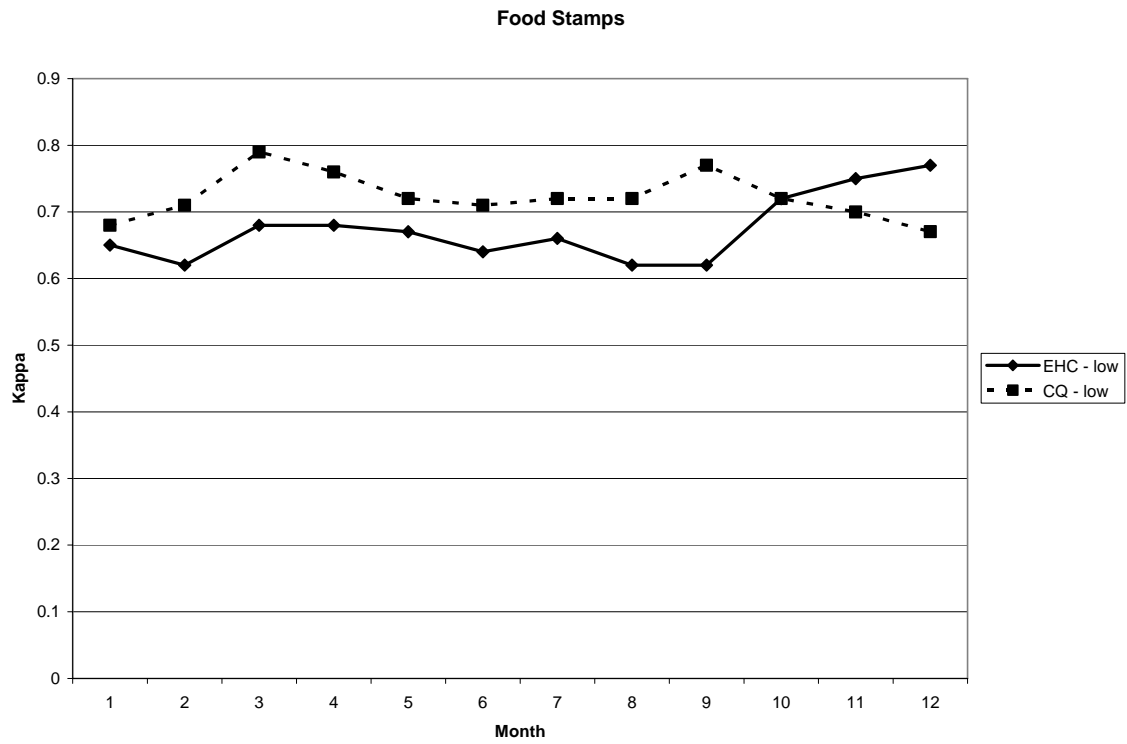


Figure 8: Monthly kappa indices of interviewing method by respondent gender.

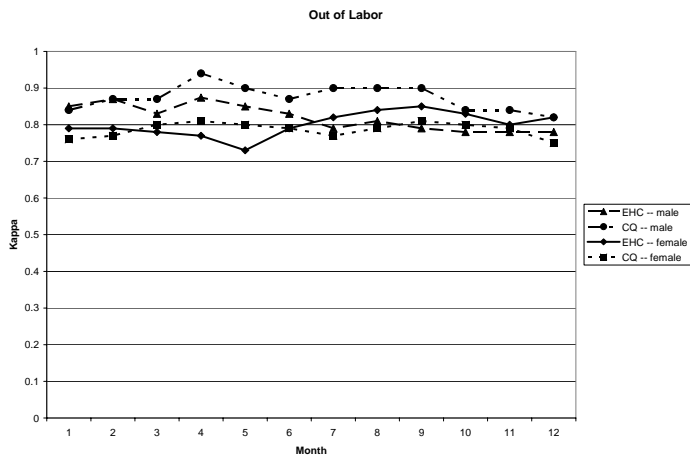
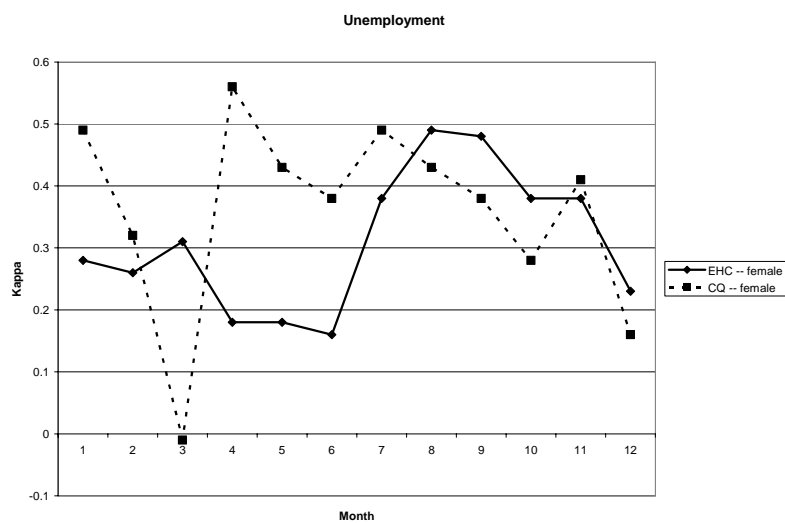
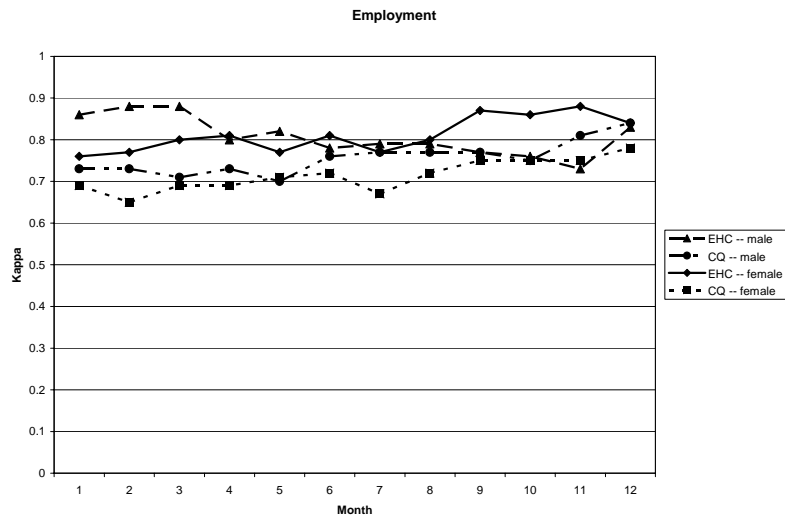
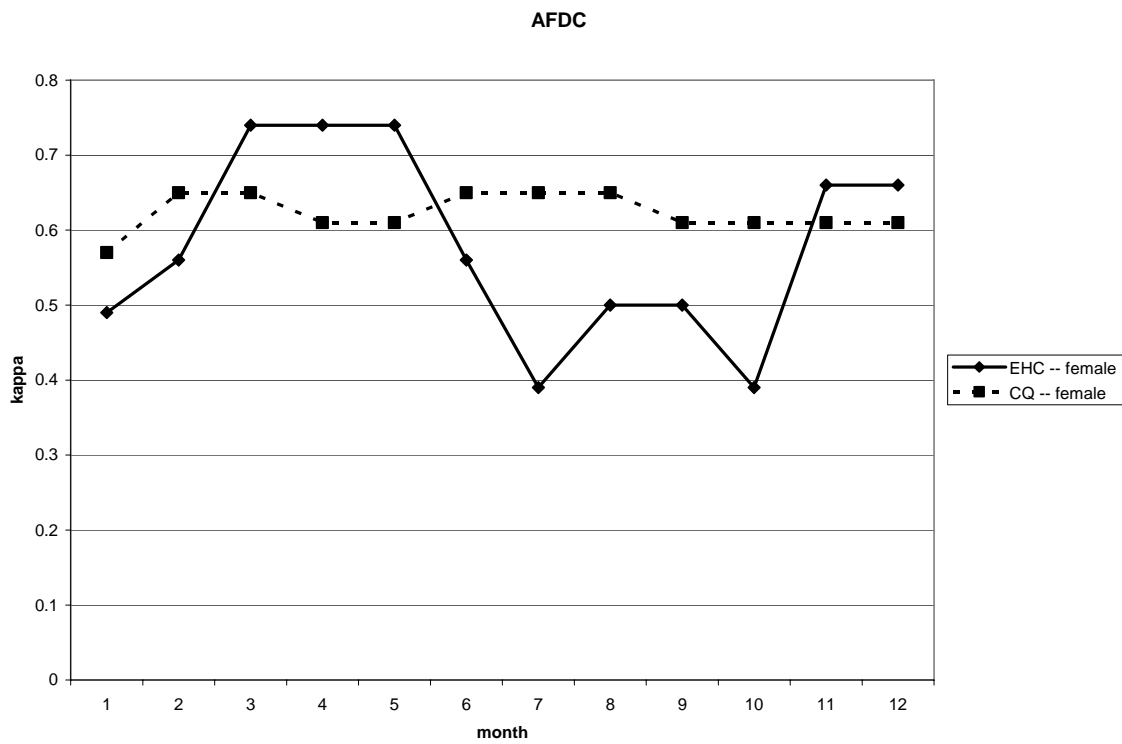
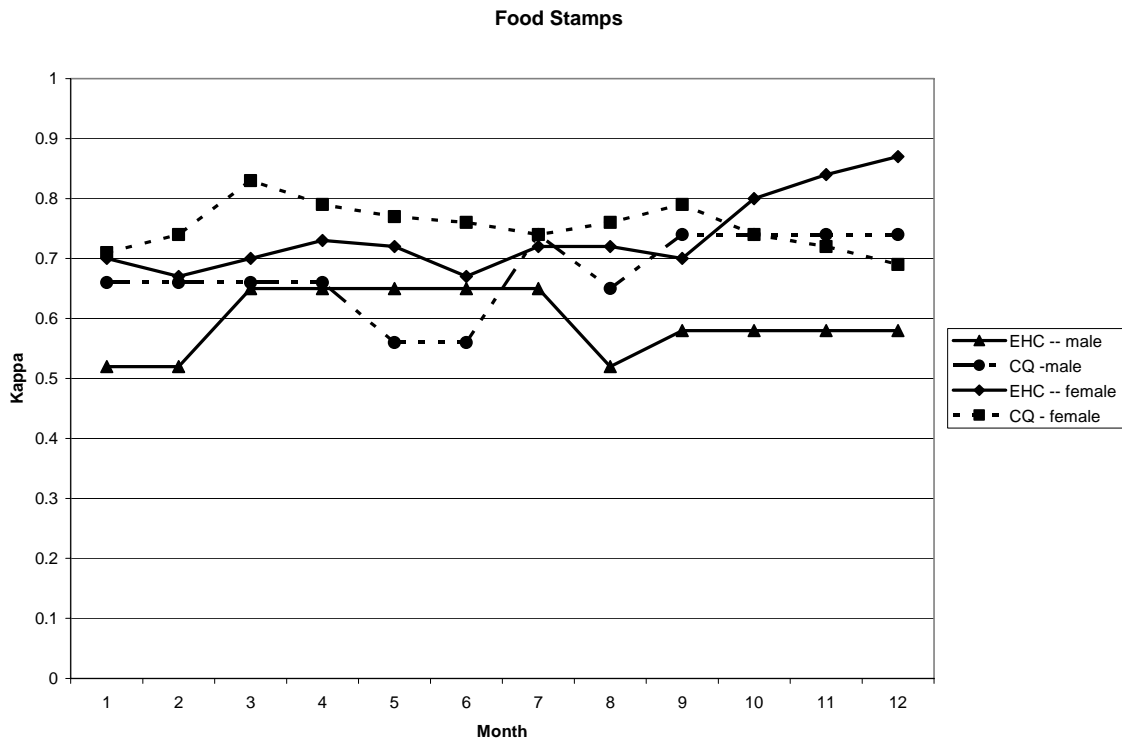


Figure 8 continued



Appendix A: Domain Introductory Scripts used in Event History Calendar

Interviews

Landmarks: "Today, it is (May, June) of 1998. We are especially interested in events that had happened from around 2 ½ years ago up to those that happened around 5-6 months ago. We are especially interested in where and with whom you have lived, your employment and unemployment history, and your income during this time. First though, are there any events in the past few years, from the end of 1995 to the present, that stand out in your mind that you are able to date either exactly or approximately? These might be family, financial, job, social or health related events."

Residence: "Now I'd like to ask you about places that you have lived during this same two year period. If you could, please provide the street address, city, and state of each place you lived during 1996 and 1997. Let's start with the address and move-in date of your current address, and then feel free to deal with any other residence in which you have lived during the past two years."

Household composition: "Now I'm interested in hearing about all of the people who have lived in your household during 1996 and 1997. What are the names of each person who lived with you during this time period, and when did they do so? What is the current age of each person?"

Employment: "Now I'd like to know about all of the jobs that you have had during this two-year period of time, that is, from January 1, 1996 through December 31, 1997. Please include any kind of work that you have done for pay. Feel free to start with any job that you had during this time. What was your occupation?"

What was the name of your employer? When did you start this job? When did you stop working at this job? Did you have any position changes on that job? When? How many hours per week on average did you work at this job? Were you paid by wage, salary, or what? What was your rate of pay for that job?"

Income: "Next I'd like to know about your annual earnings, if any, from four types of job-related income. Did you earn any income in either 1996 or 1997 as profit from an unincorporated business? How much? What were your total wage and salary earnings in 1996 and 1997, that is, before anything was deducted for taxes? In addition, did you have any income in 1996 or 1997 from bonuses, overtime, tips, or commissions? How much? Did you receive any income in 1996 or 1997 from professional practice or trade? How much?"

No Employer: "Was there any time in 1996 or 1997 when you were unemployed and looking for work? When was that? Was there any time in 1997 or 1996 when you were unemployed and not looking for work? When was that?"

Time Away: "We are also interested in time you spent away from work during 1997 and 1996. Did you miss any work because someone else was sick? How much work did you miss? When was that? Did you miss any work because you were sick? Did you miss any work because you were on vacation? How much work did you miss? When was that? Did you miss any work because you were on strike? How much work did you miss? When was that? Did you miss any work because you were temporarily laid off? How much work did you miss? When was that?"

Program participation: "We're also interested in help you may have received in the last few years. Did you receive any income in 1997 or 1996 from ADC or AFDC,

now known as Temporary Assistance to Needy Families (TANF)? When was that? How much? Did you or anyone else in your family receive food stamps in 1997 or 1996? When was that? How much?"

Appendix B: Questions Asked in Conventional Questionnaire Interviews

Moves

What is your current residential address?

Have you moved any time since the spring of 1996?

If “yes”: How many times have you moved since the spring of 1996?

If “once”: What was the month and year of your most recent move?

What was the address of the place you moved from?

If “twice” (or more): What was the month and year of your move before that?

What was the address of the place you moved from?

Questions repeat, as necessary, for the number of moves that are reported.

Household Composition

When we interviewed your family on (1996 IW date) we had (NAME OF PERSON) listed as living in your household.

Has (NAME) lived with you continuously since (1996 IW date)?

If “no” or “died”: When did (NAME) (move out/die)?

If “no”: Did (NAME) ever move back in?

If “yes”: When did (NAME) move back in? Did (NAME) ever move back out again?

If “yes”. When did (NAME) move out for the second time?

Repeat sequence for all 1996 IW date listed household members

Is there anyone else I did not mention who lived with you in 1996 or 1997, including any newborn children?

If “yes”: What is the first and last name of each person?

When did (NAME) first move in with you?

Has (NAME) lived with you continuously since (1996 IW date)?

If “no” or “died”: When did (NAME) (move out/die)?

If “no”: Did (NAME) ever move back in?

If “yes”: When did (NAME) move back in? Did (NAME) ever
move back out again?

If “yes”. When did (NAME) move out for the second time?

Repeat sequence for all newly listed household members

Employment (Q96 sequence; Q97 sequence would ask for events in 1997 first)

*Persons would be asked relevant sections dependent on being identified to have been
working now, during 1997, and during 1996.*

We want a clear description of each job you have had since January 1, 1996. I will ask you about your occupation, the name of your employer, when you started the job, and the date you last worked any jobs you are not currently working. If you worked on the same job, for the same employer, more than once, then let’s treat that as one job, and I will ask you the start and end date of each employment period. We are especially interested in jobs that you had in 1996 and 1997, but let’s start with your current jobs.

How many jobs do you currently have? If you are self-employed count yourself as an employer.

For the number of jobs reported:

What is your occupation? What sort of work do you do?

What is the name of your employer?

In what month and year did you start this job?

Did you have any (other) employer at any time from January through December of 1996?

If you are self-employed count yourself as an employer.

If “yes”: How many employers was that?

For the number of jobs reported:

What is your occupation? What sort of work did you do?

What is the name of your employer?

In what month and year did you start this job?

In what month and year did this job end?

Did you have any (other) employer at any time from January through December of 1997?

If you are self-employed count yourself as an employer.

If “yes”: How many employers was that?

For the number of jobs reported:

What is your occupation? What sort of work did you do?

What is the name of your employer?

In what month and year did you start this job?

In what month and year did this job end?

For each job reported:

On your job for (NAME OF EMPLOYER), are/were you salaried, paid by the hour, or what?

If “salary”: How much is/was your salary?

If “paid by the hour”: What is/was your hourly wage rate for your regular work time?

Did you change (position/work situation) with this employer at any time during (1996, 1997)?

If “yes”: In what month did that happen?

In which months during (1996, 1997) were you working for (NAME OF EMPLOYER)?

And, how many hours a week did you work on this job in (1996, 1997)?

Time Away (Questions on 1997 immediately followed all of these question on 1996 in Q96 interviews; the reverse occurred with Q97 interviews)

Now, thinking about the year before last, we’re interested in how you spent your time from January through December 1996. I know you may have given me some of this information already, but my instructions are to ask these questions of everybody.

Did you miss any work in 1996 because someone else was sick?

If “yes”: How much work did you miss? ____ days ____ weeks ____ months

When was that?

Did you miss any work in 1996 because you were sick?

If “yes”: How much work did you miss? ____ days ____ weeks ____ months

When was that?

Did you take any vacation or time off during 1996?

If “yes”: How much vacation or time off did you take? ____ days ____ weeks ____ months

When was that?

Did you miss any work in 1996 because you were on strike?

If “yes”: How much work did you miss? ____ days ____ weeks ____ months

When was that?

Did you miss any work in 1996 because you were unemployed and looking for work

or temporarily laid off?

If “yes”: How much work did you miss? ____ days ____ weeks ____ months

When was that?

In which months were you unemployed for at least one week?

Were there any weeks in 1996 when you didn’t have a job and were not looking for one?

If “yes”: How much time was that? ____ days ____ weeks ____ months

When was that?

In which months were you unemployed for at least one week?

Then, how many weeks did you actually work on your job(s) in 1996? ____ weeks or

“all the rest”

Income: (Questions on 1997 immediately followed all of these question on 1996 in Q96 interviews; the reverse occurred with Q97 interviews)

We try to understand how people all over the country are getting along financially, so now I have some questions about earnings and income in both 1996 and 1997.

Did you own a business at any time *in 1996* or have a financial interest in any business enterprise?

If “yes”: Was that more than one business? (Was that business/Were any of those businesses) you owned unincorporated?

If “yes”: Did (the/those) unincorporated (business/businesses) show a profit, a loss, or did (it/they) break even in *1996*?

If “profit”: How much was your share of the total income from (that

business/those businesses) in 1996 – that is, the amount you took out plus any profit left in?

If “loss”: How much was your loss from (that business/those businesses) in 1996?

Did you earn wages or salaries in 1996 from working on any jobs? (Besides the unincorporated business we just talked about)?

If “yes”: How much did you earn altogether from wages or salaries in 1996, that is, before anything was deducted for taxes or other things?

(In addition to this,) did you have any income from bonuses, overtime, tips, or commissions?

If “yes”: How much was that?

Did you receive any other income in 1996 from professional practice or trade?

If “yes”: How much was it?

Program Participation:

We’re interested in help you may have received in the last few years. Thinking about just the year before last, did you receive any income in 1996 from ADC or AFDC, now called Temporary Assistance to Needy Families (TANF)?

If “yes”: How much was it?

During which months of 1996 did you get this income?

And how about in 1997? Did you receive any income in 1997 from ADC/AFDC or TANF?

If “yes”: How much was it?

During which months of *1996* did you get this income?

Now, back to *1996*. Did you (or anyone else in your family) receive government food stamps at any time in *1996*?

If “yes”: How many dollar’s worth of stamps did you get in *1996*?

During which months was that?

And how about in *1997*? Did you (or anyone else in your family) receive government food stamps at any time in *1997*?

If “yes”: How many dollar’s worth of stamps did you get in *1997*?

During which months was that?