

REPORT ON BLS CONFERENCE ON SURVEY QUESTIONNAIR DESIGN

Judith Tanur
State University of New York at Stony Brook

Before turning to a specific report on the BLS Conference I would like to address an over-arching issue, one side of which represents a fear on my part, and the other side a major hope. The fear is that we at the conference, those at BLS, and all those working in the field of Cognitive Aspects of Survey Methodology will be reduced to putting old wine in new bottles. The issue here is that the problems that we addressed at the conference, that the CPS and CE surveys bring up, and that the CASM movement in general deals with, are problems that survey researchers have been aware of and have been wrestling with for a long time. So if all we do is call old problems by new names, then we are indulging ourselves in faddishness and are unlikely to make any but sporadic and ragged progress towards the solutions of these problems. On the other hand, I do believe that cognitive psychology has a great deal to offer to survey research. We have already discovered that the thinking of cognitive psychologists sensitizes survey researchers to look at old problems in new ways. Further, we have already found that a good deal of the methodology of cognitive psychology is transferrable to survey research and can help us investigate problems that we have long noted and that long concerned us. So I am quite sure that there is important incremental progress.

But I would hope that all of this can go a giant step further -- that the concepts and the conceptual framework of cognitive psychology can help us organize our investigations into the problems of survey research in a more systematic way than has heretofore been possible. We all know that there are many questions that need to be answered, and many fronts upon which research can advance, but very little time and very scarce resources to carry out these researches. Thus I would hope that cognitive psychologists could help point us to a coherent program of research which will let us set priorities for basic research that will generalize and be applicable across surveys, agencies, time, and space.

How could we make some first steps toward constructing that framework? I do not think it is possible to do that in a conference such as the one just convened, for while such a conference is very useful in turning up ideas, I do not think it is useful for the kind of concentrated systematic thinking that is needed for such an over-arching project. I wonder if it would be possible to support a senior cognitive psychologist for a hunk of time to prepare a report that might embody such an over-arching framework. Surely the background papers for the Committee on National Statistics' CASM seminar on the contributions that cognitive psychology can make to survey research would be a starting point. But those papers were meant as orientation rather than as research programs. While a review of the literature would be part of the proposed framework paper, it seems to me that it should go further and actually lay out and evaluate for feasibility the broad areas of research where cognitive psychology can inform surveys.

As I turn to a report of the conference itself, let me note that I shall make little effort to summarize the entire conference, or even to make comments on all the ideas that came up there. In general I shall present ideas that occurred to me before the conference as I read over the materials provided and went through the interviews, ideas that struck me as especially interesting during the conference (though I am delighted that you have the tape that archives all of the discussion for I am sure that memory serves none of the participants well enough to make these reports exhaustive) and ideas that occurred to me in the days since the conference took place. I hope this plan meets the expectations for the report required in the "contract".

Consumer Expenditure Survey

I think the most exciting idea that came out of the conference was the idea of eliminating the quarterly interview for the Consumers Expenditure Survey altogether. At one stroke this rids BLS of problems engendered by lengthy recall periods and the need to experiment to find optimum recall and thus frees resources to gather auxillary data at the time of diary pickup. Careful thought would have to be devoted to both the form and content of the questions soliciting this auxilliary information so that the survey would continue to supply data (but, I believe, more accurate data) on the kinds of major expenditures that are now collected in the quarterly interviews. The cognitive laboratory would be a useful setting for investigating how people think about, categorize, estimate, and recall such major expenditures. This switch-over would be a long-term project. For the moment, it seems to me, that a practically no-cost innovation that would make it possible to progress toward evaluating the usefulness of the diary would be to instruct interviewers to routinely flag those items that are filled in on recall rather than entered before the interviewer gets to the household. This would permit some analyses of the differences between the two sorts of data, even in the absence of validating information.

In all of the household surveys, it seems to me that respondent rules ought to be tightened up. As long as the quarterly interview survey continues to exist, changed respondent rules could improve the accuracy of the data greatly, although at some cost in interviewer time and travel or phone use. We all know that households differ in their division of labor for who buys what and who pays for what. These "gatekeepers" are those who should be answering the questions about their areas of special knowledge. It would make sense to employ the laboratory to see if patterns of shopping can be isolated. If they can be identified, then each interview could start with some questions identifying the pattern for an individual CU and then proceed to pose particular expenditures to those most competent to answer them. Such a procedure would make sense for the diary as well.

This notion of working with the respondent(s) to improve accuracy has other applications as well. In the Consumer Expenditure Survey (and I guess across all of the surveys), the idea of telling the respondent the purpose of the questioning seems to me an awfully good one. Indeed, warning at the beginning of the first interview of the kind of things that are going to be asked for would help. (I understand that such a warning is available for later interviews.)

Along these same lines, one piece of research that might usefully be carried out would be to ask respondents to keep a diary using a completely blank form. This would have two possible functions. In an experimental mode it could give BLS a better idea of how respondents "think", how they classify expenditures, and perhaps clues to ways in which the diary form could be improved. If such a technique were to be used in production mode, it would be taking advantage of insights brought by cognitive psychology that interviewing is most accurate and exhaustive if respondents are permitted to first tell the story in their own words and then are questioned about details. (See Loftus, 1979; Yarmey, 1979.) (Note that this idea of making the task of filling out the questionnaire a cooperative one was brought up in the original CASM conference in reference to the National Health Interview Survey.)

I understand that research has been carried out on the form of the diary and more is in process. The two experimental diaries we were shown represent exciting possibilities, and I look forward to learning more about the results of these tests. Several ideas do occur to me. First, it seems to me a pity that both experimental forms released the respondent from the burden of supplying quantities of items purchased. It seems to me likely that the effect of the convenience of being released from that burden may swamp any effects due to the differences in exemplification between the experimental forms. Second, it seems to me that analysis of the results of this experiment should be informed by findings in cognitive psychology on part-whole cueing that under some circumstances short lists of examples give respondents leeway to construct longer lists of events (purchases) and under other circumstances the effect goes in the opposite direction. Conversely, sometimes long lists give the appearance of being exhaustive and thus discourage respondents from generating further examples. It is a pity that the research was not designed in the light of these findings, but surely analysis will profit by taking them into account. In the same research I worry about findings based on a question phrased "Do you understand the reason for the diary survey?" Issues of social desirability would seem to create validity problems for data collected in response to such a question.

Let me address a few minor, disconnected points that occurred to me.

In Eva Jacob's presentation it was noted that gasoline reporting was exceedingly good. I understand all the problems of verification, but let us for the moment accept that indeed those numbers are very good. What insights can be drawn from that -- what makes them so good and what can be done to make the reporting of other items equally good.

The discussion about whether the transcribed items ought to be read to the respondent in order to accomplish the bounding function is a very interesting one. Doesn't the Canadian labor force survey do so? It seems to me that this is a ripe field for experimentation.

In the interviewer's manual for the Consumer Expenditure Survey, the interviewer is instructed to fill in the example pages with the respondent using yesterday's expenditures (or if there were none yesterday, those for a "usual day"). While I understand the necessity of training respondents, it seems to me that this training is modelling two behaviors that BLS hopes the respondent will avoid in filling out the diary itself -- recall

rather than immediate recording and using stereotypic rather than actual expenditures. Can a better way of training be devised?

It is quite clear that the length of the Consumers Expenditure Survey Interview is far more than respondents (or interviewers) can tolerate with equanimity and accuracy. It seems to me that the projected experiment that will offer only some sections of the interview to groups of people is a good one. But it would be, it seems to me, far better to present randomly chosen sections, or in any case to at least have random halves of the interview. Notice that when the halves are always fixed, the covariances between certain expenditures, trade-offs between them, etc. are absolutely unavailable for analysis. Further, in the design of this experiment, one should take advantage of the structure of the survey itself. Thus, in order to increase precision it would be very useful to use interviewers as blocks and, despite the difficulties involved, to be sure that each interviewer gets to use all of the five forms. Steve Fienberg and I recently drafted and submitted for publication a paper dealing with such design issues. A copy is attached to this report.

The time use literature has been experimenting with blocking out the general form of the day with the respondent and then going back and filling in the details. Would a similar idea -- asking people for the places where they habitually shop and then going over each of those places to think of what they bought there -- help?

Current Population Survey

For the CPS the idea that one can offer bounding information is again very important. I believe this is called "dependent interviewing" and I am all for it. Again, I believe the Canadian Labor Force Survey does this and it might make sense to borrow a leaf from their book, as well as to review the research leading up to their decision to use this method.

At the conference the idea of dealing with the unemployed and discouraged workers in the laboratory in order to understand problems of comprehension was questioned because of the rarity of these populations. Nobody talked about sampling from State Unemployment Office rosters of current and past recipients. Is the Federal-State cooperation sufficiently good to make this possible?

If hours of work are important to be gathered at least semi-accurately, then it seems to me they should be gathered in such a way that facilitates their accurate estimation, for they will often be estimated rather than recalled. Surely there are at least two kinds of people -- those who punch a time clock or who are paid by the hour and thus know quite precisely the number of hours they worked last week, and those who do not. It seems to me that a question that would permit categorization of a respondent into one or the other of these categories should precede the question on hours of work. Then a very simple question could be asked of those who belong to the first group, and a series of more elaborate ones asked of those belonging to the second, guiding the respondent to estimate the hours last week in a useful way. We pointed out in the CPS that it would be particularly

hard for proxy respondents to report on whether someone who was not working was looking for work or out of the labor force. Since only a relatively small percentage of the sampled population falls into this gray area, perhaps a rule could be made that required in-person responding for any family member for which this classification was possibly problematic.

More generally on the issue of proxy and self-reporting, it seems to me that it should be standard procedure that a respondent should always be asked about him/herself first and then about any one for whom he/she is doing proxy reporting. The only way to model accuracy, it seems to me, is for the self-reporting to come first. A neat and rather simple laboratory study might be to check back with those for whom a proxy reported to see what correspondence there is between the two reports. As was pointed out at the conference, of course, there are problems of possible communication between members of the family between interviews, but at least we would get some lower bound on the amount of lack of correspondence there is.

I enclose the proposed test questionnaire with some comments scribbled on it.

REFERENCES

- Loftus, E. F. (1979). Eye Witness Testimony. Cambridge, Massachusetts: Harvard University Press.
- Yarmey, A. D. (1979). The Psychology of Eye Witness Testimony. New York: Free Press.

JT:ebp

Appendix I. Proposed Test Questionnaire

Q19. How I would like to ask a few questions about your ~~work~~ LAST WEEK. This refers to the week extending from Sunday, September 7, through Saturday, September 13.

Q20. LAST WEEK, did you do any work at all, not counting work around the house?

- Yes.....0 (Skip to Q20C)
No.....0 (Skip to Q20B)
Unable to work...0 (Ask Q20A)

Q20A. Does your disability completely incapacitate you from doing any kind of work during the next 6 months?

- Yes 0 (Skip to Q27)
No 0

Q20B. LAST WEEK, did you have a job or business from which you were temporarily absent or on layoff?

- Yes 0
No 0 (Skip to Q22)

Q20C. Did you have more than one job LAST WEEK, such as a part-time or weekend job? Do not include jobs from which you are on layoff.

- Yes, more than one job 0
No, only one job 0 (Skip to Q20E)

Q20D. How many jobs did you have?

- 2
3
4

Q20E. How many hours per week do you USUALLY work at your:

Table with columns: MAIN JOB, OTHER JOBS, and TOTAL HOURS AT ALL JOBS. Includes handwritten notes and a list of job numbers from 01 to 99.

Q20E-1. INTERVIEWER CHECK ITEM

'Yes' in Q20E...0 (Skip to Q21)
All others.....0 (Go to Q20E-3)

Q20E-3. INTERVIEWER CHECK ITEM

TOTAL HOURS REPORTED IN Q20E WERE:

- 1-34 hours.....0 (Skip to Q20F)
35+ hours.....0 (Skip to Q20B)
Hours vary each week.....0 (Go to Q20E-4)

Q20E-4. INTERVIEWER CHECK ITEM

'Yes' in Q20E-1...0 (Skip to Q21)
'No' in Q20E-1...0 (Ask Q20F)

Q20F. What is the reason you USUALLY work less than 35 hours?

(Mark the appropriate reason)

- Slack work.....0
Does not want full-time work.....0
Full-time work week under 35 hours.....0
Could find only part-time work.....0
Family or personal obligations, except own health or school.....0
Own health.....0
School or training.....0
Social Security limits on earnings.....0
Other (Specify).....0

Q20F-1. INTERVIEWER CHECK ITEM

TOTAL HOURS REPORTED IN Q20E WERE:

- 1-34 hours.....0 (Ask Q20B)
Hours vary each week...0 (Skip to Q20I)

Q20G. LAST WEEK, did you work any overtime or extra hours? Include hours at all jobs.

- Yes 0 how many additional hours?
No 0
00
11
22
33
44
55
66
77
88
99

Q20E-2. Do you usually work 35 hours or more per week at your job(s)?

- Yes 0
No 0

Q20. LAST WEEK, did you lose or take off any hours from work, for any reason such as illness, vacation, holiday, labor dispute or layoff? (Include hours at all jobs.)

Yes >>>>>>> How many hours?
 No 00
 11
 22
 33
 44
 55
 66
 77
 88
 99

Q21. (If "yes" in Q20, ask about MAIN job first.) LAST WEEK, how many hours did you ACTUALLY work at your...

(MAIN) JOB?	OTHER JOB(S)?
00	00
11	11
22	22
33	33
44	44
55	55
66	66
77	77
88	88
99	99

TOTAL HOURS AT ALL JOBS: _____

Q22. INTERVIEWER CHECK ITEM

Q20E is 35+ hrs. AND Q20I (total) is less than 35 hrs... (Ask Q20K)
 All others..... (Skip to Q25)

Q23. What is the reason you worked less than 35 hours LAST WEEK?
 (Mark the appropriate reason)

- Slack work.....0
- Material shortage.....0
- Plant or machine repair.....0
- New job started or ended during week...0
- Holiday (legal or religious).....0
- Labor dispute.....0
- Bad weather affected job.....0
- Own illness, injury, medical appt.....0
- Vacation/personal day.....0
- Job hours vary each week.....0
- Family or personal obligations.....0
- School or training.....0
- Other reason (Specify).....0

(SKIP TO Q25 AND ENTER JOB WORKED AT LAST WEEK.)

Q24. What was the main reason you were absent from work LAST WEEK?

- On layoff (temporary or indefinite).....0 (Skip to Q21)
- New job to begin within 30 days.....0 (Skip to Q22)
- Labor dispute.....0
- Bad weather affected job.....0
- On vacation.....0
- Family or personal obligation EXCEPT own illness, or maternity leave.....0
- Own illness, injury or disability.....0
- Maternity or pregnancy leave/paternity.....0
- School or training.....0
- Civic or military duty.....0
- Other (Specify in notes).....0

Q25A. Are you receiving wages or salary from your employer for any of the time off last week?

Yes (Skip to Q25)
 No (Skip to Q25)

Q25B. Has your employer given you a specific date to return to work?

Yes (Skip to Q21B)
 No

Q25C. Do you expect to be recalled to your job within the next 6 months?

Yes..... 0
 No..... 0 (Skip to Q22)
 Don't know... 0 (Skip to Q22)

Q25D. Even though you eventually expect to be called back to work, have you been looking for work during the past 4 weeks?

Yes
 No

Recalled
Not recalled
Looking for work
Not looking for work

Q21E. Could you have taken a job LAST WEEK if one had been offered?

Yes (Skip to Q21F)
No

Q21E-1. What is the reason you could not have taken a job LAST WEEK?

Already has a job.....0
Own temporary illness....0
Going to school.....0 (Skip to Q27)
Other (Specify).....0 (Skip to Q27)

Q21F. As of the end of LAST WEEK, how many weeks had you been on layoff?

000
111
22
33
44
55
66
77
88
99

Q21G. Is the job from which you are on layoff a full-time or part-time job?

Full-time (Skip to Q25 and enter
Part-time job from which on layoff.)

Q22. Have you been looking for work during the last 4 weeks?

Yes
No (Skip to Q23)

Q22A. What have you been doing during the last 4 weeks to find work? (Mark ALL methods used; do not read list. Write each response last, "Anything else?")

Checked
with - public employment agency
private employment agency
employer directly.....0
friends or relatives.....0
Placed or answered ads.....0
Nothing.....0 (Skip to Q23)
Other.. (Specify in notes.).....0

Q22B. Could you have taken a job LAST WEEK if one had been offered?

Yes (Skip to Q22C)
No

Q22B-1. What is the reason you could not have taken a job LAST WEEK?

Already has a job.....0
Own temporary illness.....0
Going to school.....0 (Skip to Q27)
Other (Specify in notes)...0 (Skip to Q27)

Q22C. As of the end of LAST WEEK, how many weeks had you been looking for work?

000
111
22
33
44
55
66
77
88
99

Q22D. Have you been looking for full-time or part-time work?

Full-time
Part-time

Q22E. At the time you started looking for work, was it because you lost or quit a job or was there some other reason?

Lost job.....0 (Skip to Q25)
Quit job.....0 (Skip to Q25)
Left school.....0
Wanted temporary work.....0
Change in home or family responsibilities..0
Left military service.....0
Other.. (Specify in notes)..0

Q22F. Have you ever worked at a full-time job or business lasting 1 consecutive weeks or more?

Yes (Skip to Q25 and enter
No job, or "never worked"

Handwritten notes:
Q21E-1. Information (loss) due to...
Q22. mean difference to dependent...
Q22E. job is still...
Q22F. ...

Personal Reference
38

Q22. Have you looked for work at any time during the past 12 months?
Yes
No (Skip to Q24)

Q24. INTERVIEWEE CHECK ITEM
Outgoing Rotation..... (Fill Q24A)
All Other Rotations..... (Skip to Q27)

Q23A. At that time, were you looking for full-time or part-time work?
Full-time
Part-time

Q24A. INTERVIEWEE CHECK ITEM
Q22 is yes..... (Skip to Q24D)
Q22 is no..... (Ask Q24B)

Q23B. What is the MAIN reason that you are not currently looking for work?
New job to begin in 30 days..... (Skip to Q24)
Does not want job now..... (Skip to Q24)
BELIEVES NO WORK available in
line of work or area.....
COULDN'T FIND any work.....
LACKS NEC. SCHOOLING, training,
skills or experience.....
Employers think TOO YOUNG or TOO OLD.....
Other PERSONAL HANDICAP in finding job.....
Can't arrange CHILD CARE.....
FAMILY responsibilities.....
In school or other training.....
Ill health, physical disability.....
Other (Specify in notes).....
Don't know.....

Q24B. Do you want a job now, either full or part-time?
Yes.....
Maybe, it depends....
No..... (Skip to Q24D)
Don't know..... (Skip to Q24D)

Q23C. Do you want a job now, either full or part-time?
Yes.....
Maybe, it depends....
No..... (Skip to Q24)
Don't know..... (Skip to Q24)

Q24C. What are the reasons you are not looking for work?
(Mark each reason mentioned)
BELIEVES NO WORK available in
line of work or area.....
COULDN'T FIND any work.....
LACKS NEC. SCHOOLING, training,
skills or experience.....
Employers think TOO YOUNG or TOO OLD.....
Other PERSONAL HANDICAP in finding job.....
Can't arrange CHILD CARE.....
FAMILY responsibilities.....
In school or other training.....
Ill health, physical disability.....
Other (Specify in notes).....
Don't know.....

Q23D. Could you have taken a job LAST WEEK if one had been offered?
Yes (Skip to Q24)
No

Q24D. Have you worked at a job for pay at any time during the past 12 months?
Yes
No (Skip to Q24F)

Q23D-1. What is the reason that you could not have taken a job LAST WEEK?
Already has a job.....
Own temporary illness.....
Going to school.....
Other (Specify in notes).....

Q24E. What is the MAIN reason you left that job?
Personal, family, incl. pregnancy.....
Return to school.....
Health.....
Retirement or old age.....
Temporary, seasonal or intermittent
job completed.....
Stale work or business conditions.....
Unsatisfactory work arrangements
(hours, pay, etc.).....
Other (Specify in notes).....

Q24F. Do you intend to look for work of any kind during the next 12 months?

- Yes.....0
- It depends (Specify in notes)...0
- No.....0
- Don't know.....0

(IF ENTRY IN Q24E, DESCRIBE JOB IN Q25; OTHERWISE SKIP TO Q27.)

Q25. DESCRIPTION OF JOB OR BUSINESS

Q25A. For whom did you work? (Name of company, business, organization or other employer.)

Q25B. What kind of business or industry is this? (For example, T.V. and radio shop, retail shoe store, State Labor Dept., farm.)

Q25C. What kind of work were you doing? (For example: electrical engineer, stock clerk, typist, farmer.)

Q25D. What were your most important activities or duties at this job? (For example: types, keeps account books, files, sells cars, operates printing press, finishes concrete.)

Q25E. were you:

- An employee of a PRIVATE Co., bus., or individual for wages, salary or comm.....0
- A FEDERAL government employee.....0
- A STATE government employee.....0
- A LOCAL government employee.....0
- Self-employed in OWN bus., prof. practice, or farm...0
- Is the business incorporated?
- yes.....0 (Skip to Q28)
- no.....0 (Skip to Q28)
- Working WITHOUT PAY in fam. bus. or farm.....0 (Skip to Q28)
- NEVER WORKED.....0 (Skip to Q28)

Q25F. INTERVIEWER CHECK ITEM

- Entry (or NA) in item Q200...0 (Skip to Q26)
- Entry (or NA) in Q21A.....0 (Skip to Q26)
- All other cases.....0 (Skip to Q26)

Q26. INTERVIEWER CHECK ITEM

- Outgoing Rotation.....0 (Ask Q26A)
- All other Rotations...0 (Skip to Q28)

Q26A. Are you paid by the hour on this job?

- Yes 0
- No 0 (Skip to Q26C)

Q26B. What is your hourly rate of pay on this job, before deductions of any kind?

Dollars	Cents
00	00
11	11
22	22
33	33
44	44
55	55
66	66
77	77
88	88
99	99

(Skip to Q26E)

Q26C. How are you paid on this job? For example, are you paid at a daily, weekly, monthly or annual rate, on a piecework or commission basis, or at some other rate?

- Daily rate.....0
- Weekly rate.....0
- Biweekly rate.....0
- Monthly rate.....0
- Yearly rate.....0
- Salary plus commissions.....0
- Salary plus tips.....0
- On a piecework basis.....0
- On a commission basis.....0
- Some other way.....0

(Ask Q26D)

(Skip to Q26E)

Q26D. What is your (daily, weekly, biweekly, monthly, yearly rate of pay on this job, before deductions of any kind? Include any overtime pay, tips or commissions usually received.

- 000 000
- 111 111
- 222 222
- 333 333
- 444 444
- 555 555
- 666 666
- 777 777
- 888 888
- 999 999

(Skip to Q26F)

Q26E. How much do you usually earn per week on this job, before deductions of any kind? Include any overtime pay, tips or commissions usually received.

- 0000
- 1111
- 222
- 333
- 444
- 555
- 666
- 777
- 888
- 999

Q26F. On this job, are you a leader of a labor union or of an employee association similar to a union?

- Yes 0 (Skip to Q28)
- No 1

Q26G. On this job, are you covered by a union or employee association contract?

- Yes 0 (Skip to Q28)
- No 1 (Skip to Q28)

Q27. INTERVIEWER CHECK ITEM

This person is:

- 14-49 years of age... 0 (Skip to Q27B)
- 50+..... 0 (Ask Q27A)

Q27A. Are you retired from a job or business?

- Yes 0 (End questions)
- No 1

Q27B. How would you describe your MAIN STATUS or activity at this time? For example, in school, permanently disabled, temporarily ill or disabled, taking care of the house or family, something else?

- In school.....0
- Permanently disabled.....0
- Temporarily ill or disabled.....0
- Taking care of house/family.....0
- In retirement.....0
- Something else/other.....0

Q28. INTERVIEWER CHECK ITEM

This person is:

- 16-24 years of age...0 (Ask Q28A)
- All others.....0 (End questions)

Q28A. LAST WEEK, were you enrolled in a high school, college, or university? (Mark "yes" if currently on holiday or seasonal vacation. Mark "no" for summer vacation.)

- Yes 0 (Skip to Q28B) High School.....0
- College or university.....0
- No (End questions)

Q28B. Are you enrolled in school as a full-time or part-time student?

- Full-time 0
- Part-time 0