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**ACTIVITY LIMITATION QUESTIONS IN SLID  
RESULTS FROM THE JANUARY 1993 TEST**

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## **EXECUTIVE SUMMARY**

The SLID Labour interview contains a set of questions related to activity limitation and its impact on labour-market activity. This paper evaluates the results of the January 1993 SLID test with regards to those questions. From the answers to questions, actual flows, and interviewers' comments emerge recommendations for modifications to this series of questions. The main goal of the test, and the objective of this report has to do with the approach we take to identify people with activity limitations.

The screening questions in our test were essentially a CAI (computer-assisted interview) version of the two Census questions on activity limitation, with minor changes. These were tested as an alternative to those used by other surveys such as the Labour Market Activity Survey (LMAS) and the Health and Activity Limitations Survey (HALS); screening questions which, although more comprehensive, are associated with additional respondent burden. SLID questions were also chosen to ensure compatibility with the National Population Health Survey (NPHS), another longitudinal survey currently being developed at Statistics Canada.

The report concludes with a recommended streamlined approach for screening questions.



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## 1. INTRODUCTION

This paper studies the results of the January SLID test with regards to the DISAB module: questions related to activity limitation and its impact on labour-market activity. SLID results were compared to those of the Labour Market Activity Survey (LMAS) and the Health and Activity Limitations Survey (HALS), a 1991 Postcensal survey. Because the SLID sample was taken from both urban and rural areas in Newfoundland and from seven selected Ontario CMAs, the availability of figures for comparing with SLID results was somewhat limited. For example, for the Ontario CMAs, HALS does not have figures for all ages, but has one estimate for the group aged 15-64.

In the report, the questions analyzed are often referred to with a few words. The actual wordings of the questions tested and question flows appear in Appendix 1. The screening questions were essentially a CAI<sup>1</sup> version of the 1991 Census questions on activity limitation, except that the question dealing with limitations at school was separated from the one dealing with limitations at work; this being a labour-oriented survey. Further the "limited at work" question was different depending on whether the person had worked in the previous year or not and people aged over 65 did not get the questions relating to limitations at work.

Once people were identified as disabled or limited by a long-term condition, they were asked about the year of onset of their limiting health condition. This question was specific to the area in which they said that they were limited and respondents then went into different streams depending on whether or not they worked in the reference year.

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<sup>1</sup> Computer-assisted interviewing (CAI) is a method of interviewing in which the questionnaire is programmed into a computer, rather than written on paper. Answers are entered directly into the computer by the interviewer. Among other benefits, it allows complex flows between questions.

Those who worked in the reference year were asked if their condition prevented them from getting a better job, if they were satisfied with the amount of work they had, and if not, whether their dissatisfaction had anything to do with their condition. Those who did not work were asked if their condition completely prevented them from working.

## **2. QUESTION BY QUESTION FINDINGS**

### Number of refusals

Only one person refused to answer one of the screening questions, and it was the last of the five questions. One person refused to answer the year of onset at work, four refused to answer the year of onset at home. There were no refusals to the other questions in the module.

### Number identified as disabled or limited

With the five screening questions, 352 people were identified as eligible for the rest of the module (i.e., people who answered yes to at least one of questions 1 to 6). This corresponds to the following proportions of the sample: 16.6% for the Toronto area CMAs and 12.9% in Newfoundland. Estimates from HALS are 10.0% for Newfoundland (all ages) and 10.9% for the population 15-64, in the seven Ontario CMAs in the sample. The SLID estimate for the corresponding age group in Ontario is 13.0% (152 people/1173).

59 people answered yes to only one of the five screening questions, 66 people to two, 115 people to three, 96 people to four, 16 people to five.



For Newfoundland, we can also compare a breakdown by age of people screened in by HALS to the SLID results.

Age	SLID	HALS
15-34	5.7%	3.8%
35-54	8.5%	8.6%
55-64	28.6%	16.1%
65+	39.3%	41.4%

The results are slightly different, particularly in the 55-64 age group.

The LMAS has the same "Are you limited at ---?" questions as SLID, but did not ask the "limited at work" differently to people who worked in the year and those who did not. In addition, they had several other ways of measuring limitations in "activities of daily living" and did not ask the last of our screening questions. (Do you have a long-term disability?)

The number of people who would have been identified with the first four questions in the LMAS is 9.3% for the Toronto area CMAs and 7.3% for Newfoundland. The comparable figures for SLID are 15.4% for the Toronto area and 11.9% for Newfoundland.

#### Frequencies for screening questions

The following summarizes the occurrence of "limited at work, home, school, other" in SLID:

In a sample of 2278 people,

262 people	11.5%	are limited at home
26 people	1.1%	are limited at school
73 people	3.2%	worked and are limited at work
109 people	4.8%	did not work, but limited at work
256 people	11.2%	are limited in other activities
274 people	12.0%	have a long-term disability

Of the 274 people who answered yes to Q6, 26 people did not have a "yes" to any of Q1-Q5 (the "limited somewhere" questions). This question is therefore important as an additional screening question. In fact, it does not seem, from these results that we can drop any of the screening questions.

The sample of the National Population Health Survey is small (794 records) and is somewhat irregular (they over-sampled users of Health Care facilities). As well, it deals with different geographic units than ours (Winnipeg and Montreal). Still, the magnitudes of "yes" answers to the screening questions are similar, with the last question being the largest, followed by "limited at home" and "limited in other activities". The LMAS also finds much higher frequencies for the "limited at home" and "limited in other activities" questions than the "limited at work" and "limited at school" questions.

Seventy-eight people answered "no" to "Do you have a long-term disability or handicap?" after having said that they were limited in some area because of a long-term physical or mental condition or health problem. There may be, in some people's minds a distinction between "condition" and "handicap".

Roughly two thirds (66.2%) of those who answered the question on limitation at school said "not applicable".

Differences are small between the estimates of percentage of people screened in by proxy and non-proxy reporting.

Nobody answered "Don't know" for year of onset (Q8- A to E). One person refused to answer the year of onset at work and four people refused the year of onset at home. Overall, it would seem that respondents can answer this question. There does not seem to be any bias towards "rounded" years; i.e., 60, 65, 70, etc.

From a derived variable for "age of onset", we do not detect any bias towards "rounded" ages. Three-quarters of people who were limited or disabled identified the year of onset as 1980 or later.

Thirty-one people were dissatisfied with the number of weeks worked (Q10=no). Thirty would have liked to work more, 11 of whom said it was because of their condition (Q13 = yes). One person would have liked to have worked less but it was unrelated to his/her condition. The LMAS also found many people dissatisfied with the number of weeks they worked wanted to work more.

Eighty-four people were completely prevented from working by their condition (yes to Q14). This constitutes 3.7% of the total sample, and 64.6% of those who answered the question, compared to the LMAS finding of 63.8%. Of the people who said that they were completely prevented from working, 75 also answered that they would be limited at work if they had worked (Q4). The other nine said that they did not have a condition that limited the kind or amount of work they could do (Q4), but that their condition prevented them from working. It might be that the latter group are not prevented due to the condition limiting them at work, but, for example, can't even get to work because of transportation limitations.

Fifty-three people in the sample are prevented from finding a better job by their condition. This is 2.3% of total sample, 50% of people who were routed to the question. The LMAS found that 57.4% of those who got to the similar question were prevented from getting a better job. Of these 53 people, 7 answered that they were not limited at work.

### **3. COMMENTS FROM THE OBSERVATION REPORT**

Some SLID team members observed the interviewer-training sessions in Toronto and St. John's. The following is a summary of the observers' comments.

The introduction seemed too wordy. Some suggested that it be incorporated with the first question.

One part of the screening questions repeated in most questions was typed in lower case so that interviewers would skip past it, but interviewers tended to read the lower case intro anyway for the second and third questions. By the time they got to question 5, where the same introduction was in upper case and should have been read, interviewers ignored the introduction.

The last screening question, which asked if respondents had any long term disabilities, was considered redundant, whether respondents had answered "Yes" or "No" to the previous questions. Test results show that this question indeed measures something different from the "activity limitation" questions.

### **4. COMMENTS FROM INTERVIEWER DEBRIEFING**

As the observers had noted, many interviewers thought that the last screening question measured the same things as the previous ones. Some suggested that it should have been the only screening question and those who answered that they had a long-term disability should be asked where it affected them along with the rest of the questions of the module.

The main concern from interviewers was that the DISAB module was too long and used too many screens. It was suggested that there should have been one question

(one screen) where they could toggle down to the responses at work, at school, at home, in other activities, in a "mark all that apply" fashion. This was not possible for our approach because the program needed the answers as inputs to a decision point that determined which question we asked for the year of onset of the condition. Questions were made specific to the area of limitation that they had identified and we couldn't get this information from a "mark all that apply" question within the interview. The suggestion of reducing the number of screens is, however, worthy of consideration.

Beyond the perceived repetitiveness of the questions, respondents objected that it was assumed that they had health problems when they had none.

Interviewers felt that response burden was too great for these questions and sometimes needed to paraphrase some of these questions.

## **5. DISCUSSION & RECOMMENDATIONS**

The results of the test indicate that, in general, the questionnaire "worked". There were very few refusals, and SLID was close to other surveys in the number of people we identified as disabled or limited in their activities.

The overwhelming response from interviewers concerning the DISAB module was that it was too long. One recommendation is to shorten the introduction from:

"The next few questions are about "the respondent's" health. In these questions, a long-term physical condition, mental condition or health problem is one that has lasted or is expected to last six months or longer."

to

"The following questions ask about long-term physical and mental health conditions that last six months or longer."

From the observation reports, it seems that the measures taken to reduce the tediousness (not repeating the intro) were ignored by interviewers. This suggests a lack in training. Nonetheless, we can still reduce the number of screens used for the identification of the disabled.

The SLID content document (SLID Research Paper 92-01) indicates the intent of the first questions to be screening questions. If respondents answer yes to any one of them they are screened in for the following questions. In our flow, the number of screening questions answered is not important; if respondents answered "yes" to one or more, they will continue the questionnaire.

All screening questions should be kept. Perhaps concern over the length of the module will disappear if the screening questions fit in fewer screens, and perhaps we need to explain in training why each of the questions is needed.

One proposal is that, as soon as respondents answer "yes" to one of the screening questions, they go on to the rest of the module. This does very little to alleviate respondent burden as it will only affect some of the 15% or so that are screened in. Still, knowing that a respondent is limited in more than one area is not useful, as it does not provide a meaningful measure of severity. As long as the question about "limited at work" is asked first, the questionnaire satisfies requirements for employment equity data.

Eliminating screening questions is not viable because all questions were helpful in screening at least some people. Thus, to reduce respondent burden for those who will not be identified as limited, we must limit the number of screens. The

necessary separation between the two "at work" questions<sup>2</sup> implies that we cannot have only one "mark all that apply" question instead of the first four screens. But we can reduce the number of screens from five to three with the following approach:

Start with one of the two "limited at work" questions, depending on whether the respondent worked or not. Follow with one "yes-no" question like: "Are you limited at home, at school or in other activities?" (This could also be a "mark all that apply".) Finish with "Do you have a long-term disability or handicap?" This last question screened in 26 people of the 352, that would not have been screened in otherwise.

The rest of the flow would be altered only slightly. The question concerning the year of onset would have to be made more general: "When did this condition begin?" Since it is asked immediately following the question to which the respondent answered "yes", it is, de facto, in context.

The three-screen approach for screening questions helps in solving the respondent burden problem. It is also somewhat comparable to the 1991 Census<sup>3</sup> and with the National Population Health Survey.

The latter's screening questions do not differentiate between those who have worked in the previous year and those who have not. To achieve this would

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<sup>2</sup> This separation is an improvement over the Census screening questions for disability because it avoids the cases of people who might answer that they are not limited at work because they are not working. (They would then answer "not applicable" to "Are you limited at work?") Potentially this specialization of the "at work" question might mean a greater number of people identified as limited. While it is perhaps complicated to add such a question to the Census, in a computer assisted interview, this adds no respondent burden, and is easy to program.

<sup>3</sup> As much as the differences between paper questionnaires and CAI allow

require a reworking of their questionnaire. At the present time, they ask the demographic and labour-oriented questions at the end of their survey, and therefore the information to distinguish between our two "at work" questions is not available when they ask theirs. Also, they do not screen those who are 65 and over past the "at work" questions, but indeed ask this question of everyone<sup>4</sup>. Our questionnaire would be more comparable with the National Population Health Survey if it had one "mark all that apply" question with the four answers "at home, at school, at work, in other activities" and one more screen for "Do you have a long term disability or handicap?" As mentioned earlier, SLID would lose the ability to ask a context-specific "limited at work" question and thus perhaps screening in more people.

With this in mind, the approach outlined in the previous few pages is the one we propose. It is summarized in Appendix 2.

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<sup>4</sup> This has good points in that it doesn't assume that people stop working at 65. On the other hand, it raises the possibility of further "not applicable" answers, even to the conditional question "Would you be limited at work if you were working?"



**APPENDIX 1**

**QUESTION WORDING AND FLOW FOR DISAB MODULE  
SLID JANUARY 1993 TEST**

Words given in upper case indicate that the interviewer is to read the text to the respondent. Words in lower case are provided for the interviewer's information.

THE NEXT FEW QUESTIONS ARE ABOUT ...'S HEALTH. IN THESE QUESTIONS, A LONG-TERM PHYSICAL CONDITION, MENTAL CONDITION OR HEALTH PROBLEM IS ONE THAT HAS LASTED OR IS EXPECTED TO LAST SIX MONTHS OR LONGER.

DISAB-Q1 BECAUSE OF A LONG-TERM PHYSICAL CONDITION, MENTAL CONDITION OR HEALTH PROBLEM, IS ... LIMITED IN THE KIND OR AMOUNT OF ACTIVITY HE/SHE CAN DO

AT HOME?

yes

no

DISAB-Q2 Because of a long-term physical condition, mental condition or health problem, is ... Limited in the kind or amount of activity he/she can do

AT SCHOOL?

yes

no

N/A

DISAB-Q3 Because of a long-term physical condition, mental condition or health problem, is ... Limited in the kind or amount of activity he/she can do

AT WORK?

yes

no

DISAB-Q4 YOU HAVE INDICATED THAT ... DID NOT WORK IN %CURRENT YEAR - 1%. DOES HE/SHE HAVE A LONG-TERM PHYSICAL CONDITION, MENTAL CONDITION OR HEALTH PROBLEM THAT LIMITS THE KIND OR AMOUNT OF ACTIVITY HE/SHE WOULD BE ABLE TO DO AT A JOB OR BUSINESS?

yes

no

DISAB-Q5 Because of a long-term physical condition, mental condition or health problem, IS ... LIMITED IN THE KIND OR AMOUNT OF OTHER ACTIVITIES HE/SHE CAN DO (eg. SUCH AS GETTING TO AND FROM WORK, OR LEISURE TIME ACTIVITIES)?

yes

no

DISAB-Q6 DOES ... HAVE ANY LONG-TERM DISABILITIES OR HANDICAPS?

yes

no

-----< *end of screening questions*

DISAB-Q8A IN WHAT YEAR DID ...'S CONDITION BEGIN TO LIMIT  
THE KIND OR AMOUNT OF ACTIVITIES HE/SHE CAN DO  
AT WORK?

(answer should be year of onset)

DISAB-Q8B IN WHAT YEAR DID ...'S CONDITION BEGIN TO LIMIT  
THE KIND OR AMOUNT OF ACTIVITIES HE/SHE CAN DO  
AT SCHOOL?

(answer should be year of onset)

DISAB-Q8C IN WHAT YEAR DID ...'S CONDITION BEGIN TO LIMIT  
THE KIND OR AMOUNT OF ACTIVITIES HE/SHE CAN DO  
AT HOME?

(answer should be year of onset)

DISAB-Q8D IN WHAT YEAR DID ...'S CONDITION BEGIN TO LIMIT  
THE KIND OR AMOUNT OF LEISURE TIME OR OTHER  
ACTIVITIES HE/SHE CAN DO?

(answer should be year of onset)

DISAB-Q8E IN WHAT YEAR DID THIS CONDITION BEGIN?

(answer should be year of onset)

DISAB-Q9 DOES ...'S CONDITION MAKE IT DIFFICULT FOR HIM/HER  
TO CHANGE JOBS OR TO GET A BETTER JOB?

yes

no

DISAB-Q10 WAS ... SATISFIED WITH THE NUMBER OF WEEKS  
HE/SHE WORKED IN %CURRENT YEAR - 1% ?

yes

no

DISAB-Q11 IN %CURRENT YEAR - 1%, WOULD ... HAVE PREFERRED  
TO WORK MORE OR LESS THAN HE/SHE DID?

more

less

DISAB-Q12 WAS IT ...'S CONDITION THAT PREVENTED HIM/HER  
FROM WORKING MORE?

yes

no

DISAB-Q13 WAS IT BECAUSE OF ...'S CONDITION THAT HE/SHE  
WANTED TO WORK LESS?

yes

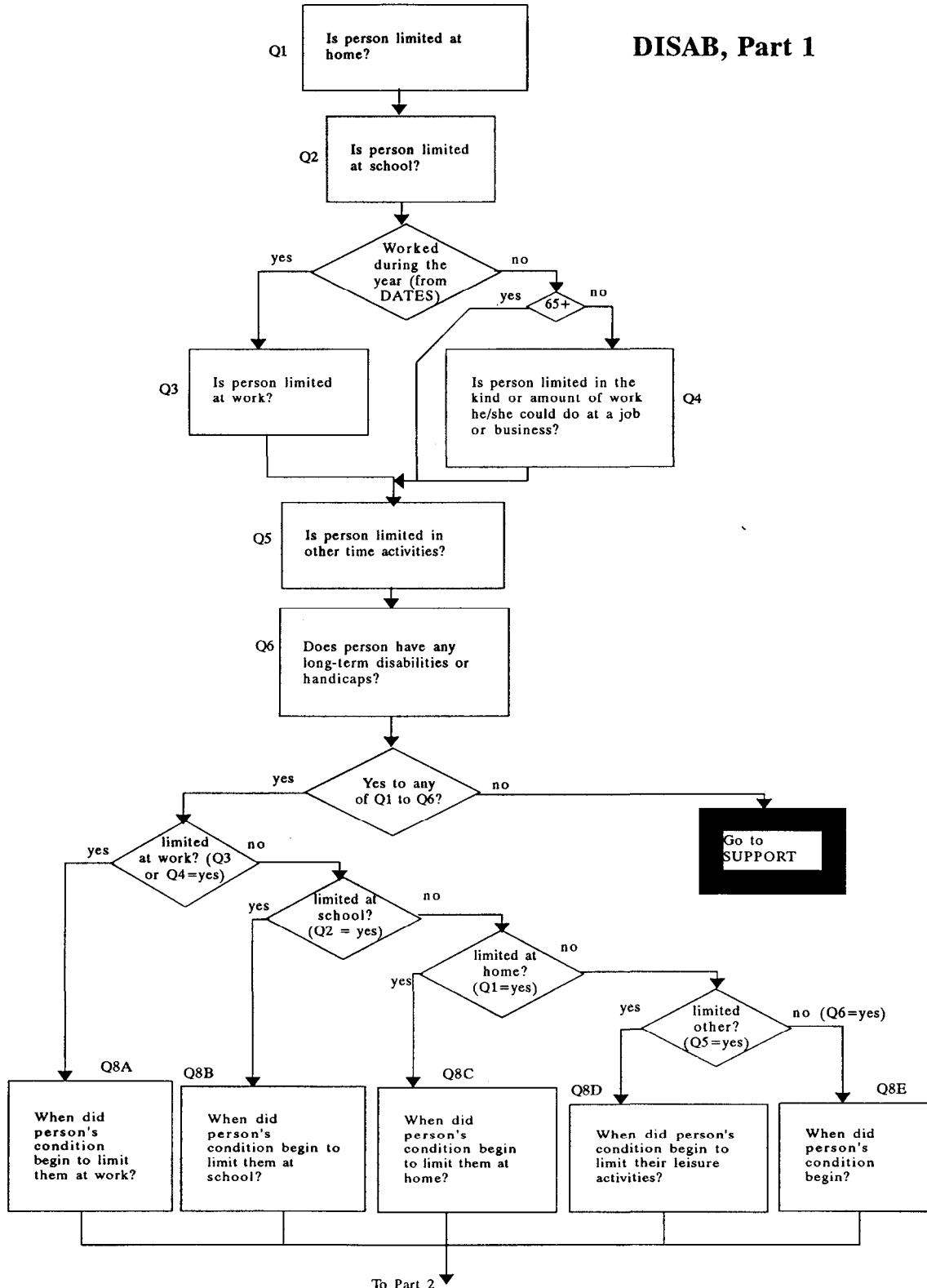
no

DISAB-Q14 DOES ...'S CONDITION COMPLETELY PREVENT HIM/HER  
FROM WORKING AT A JOB OR BUSINESS OR FROM  
LOOKING FOR WORK?

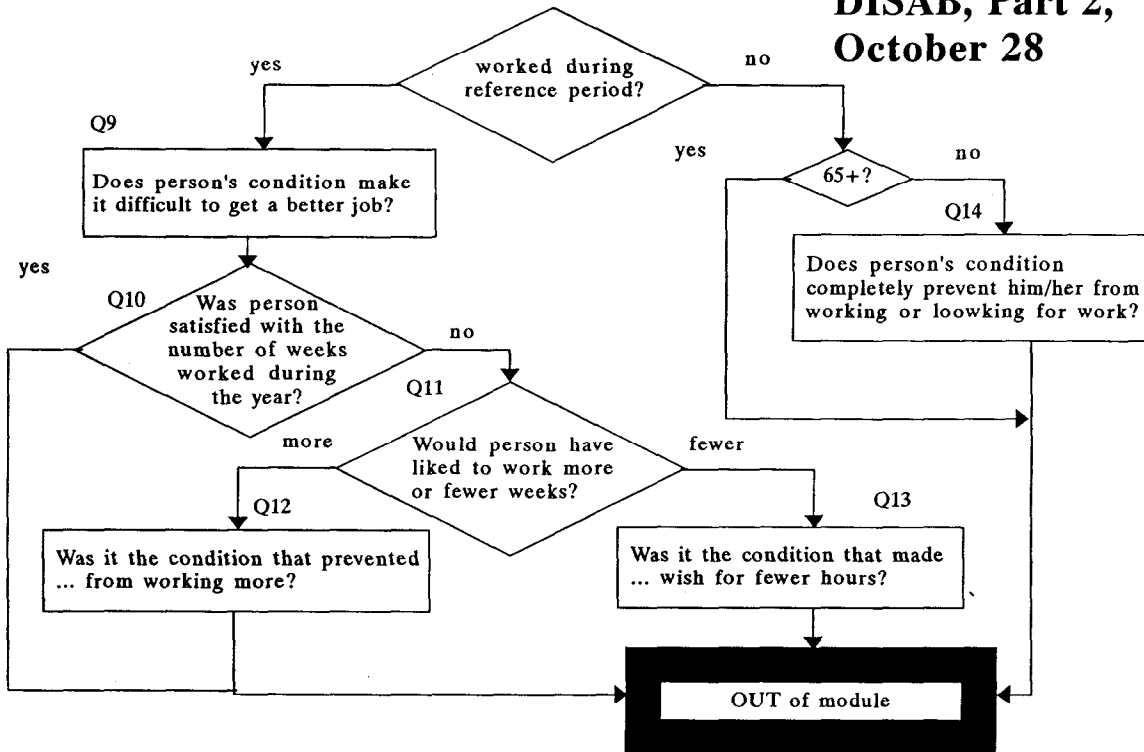
yes

no

# DISAB, Part 1



**DISAB, Part 2,  
October 28**



## **APPENDIX 2**

**QUESTION WORDING AND FLOW FOR DISAB MODULE  
RECOMMENDATIONS FOR FUTURE SLID INTERVIEWS**



**DISAB,  
Proposed  
questionnaire,  
July 1993**

