



 **BRFSS**
2006 INTERVIEWER CONFERENCE
OKLAHOMA CITY

BRFSS
2006 Interviewer Training Conference
Oklahoma City, Oklahoma

Monday, July 31, 2006

7: 30 A.M. – 8: 00 A.M.

Registration

8:00 A.M. – 8: 10 A.M.

Welcome

8: 10 A.M. – 9: 00 A.M.

Hiring interviewers *Siew Ang*

What type of person should you consider to be an interviewer?

Information a new interviewer should know

9:10 A.M. - 10: 30 A.M

Interviewer Training *Claude Comeau, Ken Laliberte*

BSB updated Web based training

Interviewer disposition code training program

Audio examples of good and not-so-good interviewing.

10:30 A.M. – 10:45 A.M.

BREAK

10:45 A.M. – 12:00 NOON

Monitoring *Joyce Kirksey*

Who should monitor, when and how

Forms and evaluations

12:00 P.M. - 12:15 P.M.

Question and Answer

12:10 P.M. - 1:15 P.M.

LUNCH (On your own)

1:30 P.M. – 3:00 P.M.

Probing and Difficult Q and A *Ken Laliberte, Bill Garvin, ClaudeComeau*

Improving the response for some difficult areas such as race, zip code, county code, income, etc...

Moderate vs. Vigorous Physical activity

What is a serving size?

What is an occasion?

Added help for certain questions
What to say in certain situations

3:00 P.M. – 3:15 P.M.

BREAK

3:15 P.M. - 4:30 P.M.

Quality Control Reports *Bill Garvin,*
Claude Comeau

Review BSB Quality Control reports for problem areas

Tuesday, August 1, 2006

7:30 A.M. – 8: 00 A.M.

CONTINENTAL BREAKFAST

8:00 A.M. – 9:30 A.M.

Converting refusals *Sylvia Sims, Bobbie Bilderback,*
Susan Barney , Claude Comeau

Techniques for refusal conversion

9:30 A.M. – 10:15 A.M.

Spanish *Ken Laliberte, Claude Comeau, Ruby Serrano*
Spanish interviewing

10:15 A.M. - 10:30 A.M.

BREAK

10:30 A.M. – 12:00 P.M.

WinCATI reports *Claude Comeau*

Interviewer specific reports

What to look for and how to interpret reports

Typical red flag warning signals

Additional enhanced reports

12:00 P.M. - 12:15 P.M.

Question and Answer

12:15 P.M. – 1:15 P.M.

LUNCH (On your own)

1:15 P.M. – 3:00 P.M.

Panel Discussion: (Open forum, Cell Phones 07/08?, Data Collection Committee)
Names: *Kenneth Laliberte, William Garvin, Claude Comeau, Joyce Kirksey, Annie Hickman and Bobbie Bilderback*

3:00 P.M. - 3:15 P.M.

BREAK

3:15 P.M. - 4:30 P.M.

State sharing time (best practices)



Hotel Information:

Sheraton Oklahoma City Hotel

One North Broadway

Oklahoma City, Oklahoma 73102

(405) 235-2780 or 1-800-325-3535

Online Reservation: <http://www.sheratonokc.com/>

**Ask for: Group rate under BRFSS Interviewer Training Conference (\$67.00 plus taxes)
(Reservation Deadline Jun 29th)**

Hotel does not provide shuttle from/to the Will Rogers airport

Airport Express will take you to the hotel @ \$34.00 round trip

No reservation needed. For more information, call 1-877-688-3311

Here is a map of the hotel and Bricktown area:

<http://www.bricktownokc.com/map2/bricktownmap2003.html>

or

<http://www.bricktownokc.com/map2/map.pdf>



Hiring Interviewers

- presented by
Siew Ang, M.A.
Oklahoma State Department of Health



Prior to Hiring Interviewers

- Identify the need for a new interviewer
- Seek support from upper-level management
- Identify financial resources for hiring – state or BRFSS grant
- Identify the space and computer facility for new hire
- Identify the type of hiring – a temp, a part-time, full-time? classified or unclassified?
- Develop a job announcement

Why are BRFSS interviewers important?

⇒ BRFSS User's Guide



- You are the frontline to accurate data collection
- You are the ONLY link between the interviewees and the public that use the data

Hiring Sources

⇒ BRFSS User's Guide

- Interviewers can be recruited from:
 - Job placement services from community organizations
 - Temporary service agencies
 - Local marketing research firms that subcontract
 - Health department employees working for extra pay
 - College students
 - Retired persons
 - Word of mouth (OK)

Why are BRFSS interviewers so important (2)?

- Many organizations use the info to help persuade people to adopt healthier lifestyles.
- The info are used on the news and seen in newspapers throughout the United States.



Hiring Requirements

- Check for Human Resources (HR) requirements
 - What it takes to recruit, and length of time for the announcement to go out, or for the hiring to take place
- What other requirements are necessary?
 - Equal Employment Opportunity

Screening Potential Candidates

- Screen applications for potential candidates
- Call potential candidates to set up interview dates
- Inform candidates of number of hiring hurdles prior to the face-to-face meeting
- Prepare interview questions and rating sheets
- Prepare a brightly-lit, clean and quiet room that provides privacy for the final face-to-face meeting

Additional Qualities of Interviewers - Oklahoma

- A person who displays interest
- Someone who sounds positive who enjoys varying personalities
- Able to accept constructive criticism to enhance skills
- Competent person
- Person with prior experience is always a plus but not necessarily required
- Good attitude
- Dependable and flexible
 - More information available in your package

What type of person should you consider to be an interviewer?

- Skills: (BRFSS User's Guide)
 - Strong social, interpersonal and communication skills
 - Computer proficiency
 - Self-motivation
 - Ability to follow instructions
 - Good telephone demeanor
 - Ability to work well with the public
 - Fluency in languages spoken by target audience (optional)

Additional Qualities of Interviewers – Missouri

- Responsibility
 - Understand the nature and content of the questions
 - Ensure the correct respondents are interviewed
 - Make quality a priority in all aspects of interviewing
 - Appropriately deal with interview problems
 - Attempt to convert refusals into complete interviews
 - Addition information are available in your package

What type of person should you consider to be an interviewer? (2)

≡ BRFSS User's Guide

- Aptitude:
 - Comfortable in asking highly sensitive questions to persons over the telephone (e.g., questions about sexual behavior). A good attitude towards refusals and rejection, are also important
- Voice quality:
 - Neutral, even tones are the best

Meeting Potential Candidates

Explain the background and the purpose of BRFSS

- Explain briefly the benefits of the job
 - on a personal level: health plan, retirement plan
 - on a national level: collect accurate data, contributing to crucial health decision making



Meeting the Candidates (2)

- Skills and qualities to look for during a hiring interview session:
 - Good telephone voice
 - ✓ Listen to candidate's voice on the phone
 - Language proficiency
 - ✓ Good pronunciation of terms
 - ✓ Proper grammar usage
 - Reading proficiency
 - Demonstration of basic computer skills



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Interview Questions - New Mexico

Open-ended questions (score 1 – 10):

- More or less the same theme (a copy is in your package)
- Team experience and assets for team
- Reasons for wanting to work part-time nights and weekends



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Interview Questions - Oklahoma

On a scale of 1 - 5, with 5 being the highest score, rate the candidate's response on each question:

1. Tell me about yourself.
2. Tell me about your customer service and/or interviewing experience.
3. What are your computer skills? What programs have you worked with?



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Information a candidate should know:

- That we are asking sensitive questions during the interview
 - Intimate partner violence
 - Sexually transmitted diseases (e.g. HIV)
 - Suicide and suicide attempts
 - Racial discrimination
 - Depression
- Potential interviewer should be comfortable asking these questions on the phone



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Interview Questions - Oklahoma (2)

4. What does confidentiality mean to you?
5. Why should we employ you in this position?
6. How would you manage these interviewer problems appropriately? Scenario: (If you called a respondent you introduce yourself and the person hung-up the telephone what would you do?)
7. Have potential interviewer read BRFSS Interviewer's Script Test Study.



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Information a candidate should know:

- Also explore the attitude towards refusals and rejection
- In this job, sometimes you will be yelled at, rejected and even cursed at. It is just the nature of the job. What do you do when you are being yelled at on the phone?
- Would you be comfortable in a situation like this?



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First days for a new interviewer

- The Purpose of BRFSS
- Calling center procedures and studies
- Office policies and work expectations
 - Hours of duty, assignment of work hours, basic interviewing rules, dress code, etc...
- Confidentiality of information – e.g. HIPAA



How about your hiring experiences?



First days for a new interviewer (2)

- Updates on training, workshops and quizzes will be ongoing for quality assurance
- Importance of reading verbatim
 - In order to obtain valid results, interviewers should not add words that might change the meaning of the question
- Ensure quality is a priority in all aspects of interviewing



Job Evaluation

- New and existing Interviewers will be evaluated annually or bi-annually for their job performance
- Self-evaluation
- Evaluation will reinforce their strengths, and identify their weaknesses so that they can make the appropriate behavior modification in their jobs



Abbreviations – ver. 1.0

= number

? = question

@ = at

aftr = after

am = morning

b4 = before

bsy = busy

bttc = better time to call

cb = call back

chld = child

cl = call

dncb = don't call back

dncl = do not call list

dsnt = doesn't

eve = evening

hh = household

hm = home

hr = hour

IR = initial refusal

IT = initial terminate

ldy = lady

lv = leave

nt = not

oot = out of town

pm = night

pp = people

prnt = parent

res = resident

resp = respondent

sd = said

spk = spoke

spk w/ = spoke with

tom = tomorrow

wdce = works day call eve

wecd = works eve call day

whn = when

wk = work

wld = would

x = time

Pronunciations

Cholesterol (co less ter all)
Pneumococcal (new mo cock al)
Rheumatoid (room a toy'd)
Intravenous (in tra v nus)
Venereal (van ear e al)
Gonorrhea (gone o re ah)
Chlamydia (cla mid e ah)
Hygienist (hi jean ist)
Hysterectomy (his stir ec tommy)
Phlegm (flem)
Myocardial (my o card e al)
Infarction (in fark shun)
Sigmoidoscopy (sig moyd os co pe)
Colonoscopy (coal un os co pe)
Fibromyalgia (fi bro my al gi ah)
Dysthymia (dys·thy·mi·a)
Osteopenia (os·te·o·pe·ni·a)

WebDisp.doc – v 1.0

July 24, 2006

C. Comeau

Web Based Disposition Code Trainer – Ver. 1.1

WebDisp.htm is a web based disposition code trainer. This allows interviewers to practice and test their disposition coding skills. Many examples are provided. A web browser like FireFox or IE is all that's required.

- Both experienced and novice interviewers can benefit.
- The response screens are designed to look like the WinCATI "F3" key.
- There is immediate feedback for the interviewer.

The web program is a good tool to make sure all interviewers are assigning disposition codes the correct "BRFSS" way.

BRFSS Disposition Code Trainer - ver 1.1

Q1.) When a respondent is asked "Is this 603 555-9744" they say yes but it's their home phone number that has been forwarded to their cell phone. They say they can't do the survey now because they are driving. How should you code this?

- | | |
|---|---|
| <input type="radio"/> 1. Supervisor Attention | <input type="radio"/> 4. Did not speak with a person |
| <input type="radio"/> 2. Schedule Appointment at Adult's request | <input type="radio"/> 1. Answering Machine |
| <input type="radio"/> 3. Spoke with a person on the line | <input type="radio"/> 2. Tech. Barrier message other than ans. machine |
| <input type="radio"/> 1. A Refusal/Hang Up/Termination | <input type="radio"/> 3. Phone number temporarily out of service message |
| <input type="radio"/> 2. Final Refusal/Hang Up/Termination | <input type="radio"/> 4. No answer to normal telephone ring |
| <input type="radio"/> 3. No Adult or Respondent available | <input type="radio"/> 5. Normal busy signal |
| <input type="radio"/> 1. Adult or Sel. Resp. Not Available at this time | <input type="radio"/> 6. Fax/data/modem sound |
| <input type="radio"/> 2. Child answered phone & did NOT pass to adult | <input type="radio"/> 7. Fast busy signal |
| <input type="radio"/> 3. Household, but No one 18+ years uses phone | <input type="radio"/> 8. Possible non-working number |
| <input type="radio"/> 4. Household away entire interview period | <input type="radio"/> 9. Circuit busy |
| <input type="radio"/> 5. Selected resp. is away entire interview period | <input type="radio"/> A. Null Attempt |
| <input type="radio"/> 4. Language Problem | <input type="radio"/> B. Not a private residence |
| <input type="radio"/> 5. Physical or Mental Impairment | <input type="radio"/> C. Tritone or message indicating Non-Working number |
| <input type="radio"/> 6. Not a Private Residence | <input type="radio"/> D. Message indicates phone number different than dialed |
| <input type="radio"/> 7. Phone number different than number dialed | |
| <input type="radio"/> 8. Phone number rings out of state | <input type="radio"/> 5. Cell Phone contact |

[Next Question](#) [Previous question](#) [Skip to a specific question](#)

Interviewer Monitoring

-by OSDH Call Center
Presenter: Joyce L. Kirksey



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Benefits of peer monitoring:

To let interviewers experience the following:

- Selection of correct respondents
- Tone of voice
- Attitude
- Interviewing techniques
- Probing
- Ability to handle various situations
- Assigning correct disposition codes



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Purpose of Monitoring

- To insure the interviewer is reading the BRFSS script as written and not skipping or adding words of their own
- Most important tool ensuring standardized interview behaviors
- Make sure the household roster is done correctly



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Characteristics of a good Monitor

- Alert
- Knowledgeable
- Rate fairly
- Note both strengths and weaknesses



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Who should monitor?

- Supervisors
- Selected senior interviewers that are assigned to monitor
- Interviewers should monitor each other



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When should monitoring be done?

- Daily in order to ensure High Quality Interviewing



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How should monitoring be done?

- Using a Monitoring Form
 - Standardized
 - Objective
 - Fair
 - Consistent
 - Constructive

Interviewing Techniques

- Attempts to Make Appointment with Appropriate Respondent
- Executes Respondent Selection Process Smoothly
- Has a Good Interviewing Pace
- Does Not Allow Respondent to Ramble
- Talks in a Calm Tone to Not Distract Respondent or Staff
- Does not Discuss Own Personal Experiences
- Correct Disposition Code Used
- Does not change context to own words
- Smooth Closing of the Interview

OKLAHOMA BRSS MONITORING FORM

Instructions: Rate each interviewer's characteristics on a scale from 1 to 5 (1 being the lowest rating and 5 being the highest rating).

Verifies Telephone Number YES NO 1 2 3 4 5

ATTITUDE

Is Courteous and Polite 1 2 3 4 5
 Sounds Confident 1 2 3 4 5
 Knows Pronunciations 1 2 3 4 5
 Speech is Clear 1 2 3 4 5
 Does Not Hurry Respondent 1 2 3 4 5
 Does Not Sound Sarcastic 1 2 3 4 5
 Sounds Interested and Answers Respondent Questions 1 2 3 4 5

INTERVIEWING TECHNIQUES

Attempts to Make Appointment with Appropriate Respondent 1 2 3 4 5
 Executes Respondent Selection Process Smoothly 1 2 3 4 5
 Reads Word for Word 1 2 3 4 5
 Has a Good Interviewing Pace 1 2 3 4 5
 Does Not Allow Respondent to Ramble 1 2 3 4 5
 Talks in a Calm Tone to Not Distract Respondent or Staff 1 2 3 4 5
 Follows Skip Patterns Smoothly 1 2 3 4 5
 Does not Discuss Own Personal Experiences 1 2 3 4 5
 Correct Disposition Code Used 1 2 3 4 5
 Does not change context to own words 1 2 3 4 5
 Smooth Closing of the Interview 1 2 3 4 5

PROBING

Probes for More Accurate Information 1 2 3 4 5 NA
 Attempts to Probe when Respondent is Unsure of Answer 1 2 3 4 5 NA
 Encourages Responses When Respondent Seems Reluctant 1 2 3 4 5 NA

Probing

- Probes for More Accurate Information
- Attempts to Probe when Respondent is Unsure of Answer
- Encourages Responses When Respondent Seems Reluctant

Attitude

- Is Courteous and Polite
- Sounds Confident
- Knows Pronunciation
- Speech is Clear
- Does Not Hurry Respondent
- Does Not Sound Sarcastic
- Sounds Interested and Answers Respondent Questions

Common Interviewer Errors Example #1 -

- Male stated "I'm not interested", click. Interviewer immediately coded as a refusal.
- Interviewer should call back and at least make an effort to start the interview.



Example #2

- The interviewer reads the question and immediately afterwards will say, “you stated earlier that ...,” and codes the answer without confirming with respondent.
- Read the entire question even though answer has been given previously.

Monitoring Interview Follow-up



- Discuss employee’s performance
- Emphasize strengths / weaknesses
- Positive and constructive criticism
- Additional training as needed
- Regular feedback meetings

Example #3

- Interviewer states, “That’s okay, you don’t have to answer this question if you don’t want too.”
- Explain reason for question instead of automatically checking “Don’t know/Not sure” or “Refused.”

Monthly Incentives

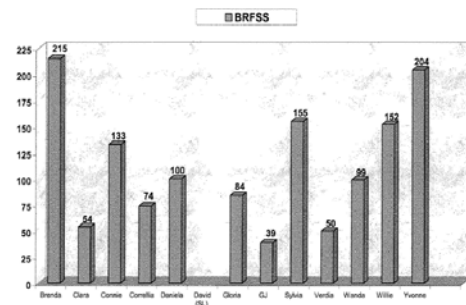
- Monthly reports generated:
 - Total of Completes
 - Refusal Conversions
 - Total of Call Blocks
 - Employee of the Month
 - Certificate of Appreciation



Example #4

- The question is “What is your Race?” The respondent replies, “What does that have to do with my health?”
- The interviewer should explain the reason why the question is being asked

COMPLETED SURVEYS JUNE 2006



COMPLETE- INITIAL REFUSALS JUNE 2006

ID #	INTERVIEWER	RECORDS												TOTAL	
714	Cannon, Willie	47	688	1268	1853	2023	2048	2853	3218	3245	3315				10
744	Carson, Dennis														0
781	Farner, David														0
753	Gonzales, Yvonne	102	207	288	448	448	618	793	777	837	871	919	930	1078	32
		1402	1409	1480	1807	1847	1889	1862	1733	1833	1858	1874	1929	1906	1981
		2023	2050	2107	2508										
719	Jones, Brenda	105	378	882	838	1162	1382	1602	1928	2169	2345				10
787	Long, Coriella														0
713	Martinez, Claudia	2391													1
756	Morris, Gloria	781													1
732	Pulter, Connie	365	626	1024	1972	2282	2571	3037	3211						8
745	Russell, Verdia	321	1314	1972	2386										4
793	Sims, Sylvia	236	454	1081	1278	2028	2431	2644	2979	3296					9
729	Taylor, Wanda	134	172	378	205	500	1793	1890	1984	2168	2312	2386	2406		12
729	Thomas, Clara	170	1318												2
															GRAND TOTAL: 80

June 2006 Winner - Yvonne Gonzales

Employee of the Month

JUNE 2006

This certificate is presented to

YVONNE GONZALES

*in recognition of outstanding performance in converting
thirty-two refusals to completes and zero monthly errors*

Witness

Date



BRFSS CALLING CENTER

MONTHLY ERRORS FOR BRFSS JUNE 2006

ID #	Interviewer	Jun 1-3	Jun 4-10	Jun 11-17	Jun 18-24	Jun 25-30	Total	Remarks
714	Cannon, Willie			1	4	5	10	341 Dispatched wrong a/c 360 not 360 Call back a/c not sent per
744	Carson, Dennis			0	1	3	3	174 Dispatched wrong a/c 344 not 344 Dispatched wrong a/c 330 not 330 Dispatched wrong a/c 330 not 328
781	Farner, David			0	1	3	3	837 Dispatched wrong a/c 101 not 100 Call back a/c not sent per Call back a/c not sent per
753	Gonzales, Yvonne					0	0	1078 No errors
719	Jones, Brenda				1	1	2	1928 Call back a/c Monday not Saturday 7:30 pm
787	Long, Coriella					3	3	3037 Called 3037 not 3030 Call back a/c not sent per Call back a/c not sent per Saturday voice message started to call late in the evening
713	Martinez, Claudia			2	2		4	468 Call back a/c not sent per 1888 Call back a/c not sent per 1871 Dispatched wrong a/c 838 not 828 2028 Call back a/c not sent per
732	Pulter, Connie						0	2571 Nothing
745	Russell, Verdia			1	1		2	634 Call back a/c Monday morning not Saturday 4:30 pm 2168 Call back a/c not sent per
793	Sims, Sylvia					2	4	2979 19 Call back a/c 11:30 am not pm 391 Call back a/c not sent per 871 Dispatched wrong a/c 880 not 878 2168 Call back a/c not sent per
729	Taylor, Wanda						0	
729	Thomas, Clara						0	
							TOTAL ERRORS:	24

Congratulation to Clara, Verdia, Wanda and Yvonne for Zero Errors!
MONTHLY WINNER IS YVONNE GONZALES

EMPLOYEE OF THE MONTH JUNE 2006



YVONNE GONZALES

Congratulations!

Presented for:

- Converting 32 Refusals to Completes
- Zero Errors for the Month of June

WebProbe.doc – v 1.0

July 24, 2006

C. Comeau

Web Based Probing: Listening to Interviewers/Respondents

WebProbe.htm is a web based system that allows interviewers to listen to actual BRFSS interviews (they were simulated). Through these examples (both good and bad examples) the interviewer can get a good sense of proper probes. The recorded speech and web based .html document that plays the speech are provided on the disk for the 2006 Oklahoma BRFSS Survey Supervisor and Interviewer Training Conference. Only a web browser like FireFox or IE along with a computer with sound (via speakers or headphones) is required.

- It is felt that by listening to the examples the interviewers get the full impact of probes. This includes voice inflection, tone as well as the words said.
- By showing common interviewer probing errors/situations it is hoped that the interviewers will be more conscious of their future probes.
- The examples will provide supervisors and monitors with specific patterns to look for while monitoring interviewers.

After the interviewers read “Probes and Clarifications for the BRFSS Survey” it is suggested that each interviewer go through this web based training.

The interviewer going through the training controls the playback of the recorded speech. They can play the speech once or several times before answering a question. A device similar to a VCR, CD, DVD player (or IPOD controls) is shown on the screen. The “play” button is used to start the recorded speech.

#1.) The speech below is the interviewer asking the BRFSS Physical Health question. Listen to it (by pressing the > button) and think about how she does:



The respondent said "good most of them". What answers below are true:

- a.) The interviewer assumed the respondents answer meant "no days at all".
- b.) Saying "no days at all" leads the respondent to an answer.
- c.) The interviewer should of used a neutral probe.
- d.) All of the above.
- e.) None of the above.

Probe3.doc – v 1.4

July 24, 2006

C. Comeau

Probes and Clarifications for the BRFSS Survey

What is Probing:

Probing is a method used after you have read the original survey question to get an appropriate answer from a respondent that is being unclear or inaccurate. Before you use any probe you must realize that the point of a probe is to get accurate information from a respondent. You want to make sure the probe you use does not influence the individual in any way to pick one answer over another. This is a very delicate task. Often respondents want you to nudge them one way or another, you cannot do this.

Good probing helps the respondent find the correct answer without influencing them. Sometimes probing and probing again on a question will cause the respondent to get agitated or annoyed. You want to use this technique but be careful not to over do it. In other words you should probe on a question when needed but at some point you may realize the respondent is getting agitated or annoyed and need to stop and you may need to stop probing on that question. At no time should you accept any answer you feel the respondent did not fully mean. If they continue to be vague or unsure use the “Don’t know/Not sure” option (but do so sparingly).

Sometimes the respondent wants clarification of a term. If it is not on the CATI screen as an interviewer note the interviewer cannot provide any clarification.

The simplest probe is to just repeat the question. Often times just hearing the question again will allow the respondent to make the correct choice.

There are some special situations where standard probes have been developed for specific situations. These are listed below. Sometimes a few possible probes are suggested. Try different ones and see which one works best for you. Practice the probes so they sound natural when you use them. Use probes that have been tested and tried. Don’t be a “cowboy” and just try to “wing it” every time. You will have better results with standard proven probes.

As with any speech to the respondent never have a probe include surprise, pleasure, approval or disapproval.

Feel free to contribute to this list of probes.

Don’t Mislead with a Probe:

A mistake made by some interviewers is to use a probe that leads the respondent to a certain answer (even though that may not be the respondent's real answer). This is the most common probing mistake. It leads to inaccurate data.

A common error seen with some interviewers is to give examples of what they feel the respondent is saying. For example if the respondent says "a few" it would be wrong for the interviewer to say "so would that be 2 or 3?" Interviewers have to realize that it is human nature for respondents to accept one of the examples given by an interviewer. Even though the respondent may have meant 4 times by "a few" they will now most likely pick 2 or 3. This is because the respondent now feels that the "right" answer must be 2 or 3. Respondents don't want to give the "wrong" answer.

Another example of a bad probe is if someone says "I am about 6 feet tall". The interviewer should not respond with "so would you say 6 feet or 5 feet 11 inches". Again the respondent is sure to then pick one of the two even though they may be thinking their height is 5 feet 10 1/2 inches or 6 feet 1 inch.

Another BAD probe:

Respondent: I weigh between 150 and 160.
Interviewer: "So would you say about 155?"

The respondent is bound to then pick 155 even though they may weigh 160 (or 163).

It cannot be stressed enough that the respondents will pick up on any "hint" given by the interviewer on how to answer a question. You must make sure any probe you give is neutral. Whenever you say a probe you should always think to yourself "was that a neutral probe or did that lead the respondent in any way?"

Neutral Probes (from the BRFSS Web site):

Use only neutral probes.

The most important thing to keep in mind when you are probing for answers is to use only neutral probes that don't suggest answers. Repeating the question is one of the best neutral probes and one you'll probably use often. Be sure to read the question only as it appears on your CATI screen.

Here are some examples of other neutral probes:

- "What's your best guess?"
- "I just need your opinion."
- "If you had to choose, which would you pick?"

Remember never "lead" a respondent to a particular answer. Other leading probes to avoid are "Do you mean _____?" or "Then you feel ____?" Some people tend to say "yes" to any suggestion either because it's easy or because they think it's the "right" answer.

Some clarifications:

NM has a section in their training guide on how to code specific questions. It is included below (with a few additions from other states and CQC). These items may avoid or suggest a probe:

DOCTORS - In general, a doctor seen anywhere is a visit. This can be out of the country.

ALCOHOL CONSUMPTION - When a respondent reports alcohol consumption in 'quarts of beer', code each quart of beer as three drinks. For example if a respondent drinks two quarts of beer on each occasion that would be coded as '06' drinks.

Any amount of alcohol under a drink is rounded up. Example....1/2 glass of wine = 1 drink

OCCASION: Occasion is typically self-defined by the respondent because it can have so many meanings. The best probe is: "Whatever an occasion means to you".

MODULE 4: DIABETES - M4.1 AGE OF ONSET - If the respondent forgets at what age they were first diagnosed with diabetes, probe for the decade. Ask if they are in their 20's, 30's, 40's, etc. Explain the importance of the question and ask for an age range. If the respondent gives an age range then code in the middle. Example—40;s code as 45. Only use this method if it would be a Don't Know/Not sure or refusal otherwise. This is a rare case where we will take a non-specific answer.

DEMOGRAPHICS – AGE - ONLY FOR REFUSALS - NOT RESISTANCE OR HESITANCE: If the respondent refuses to give their age, probe for the decade. Ask if they are in their 20's, 30's, 40's, etc. Explain that knowing their age helps us know which questions to ask. Some questions are skipped based on age. If the respondent gives an age range then code in the middle. Example—40;s code as 45.

If they still refuse, then code as refusal and the computer will ask all questions regardless of age based skip patterns, i.e. HIV, Colorectal Cancer, Falls.

WHICH ONE OR MORE OF THE FOLLOWING WOULD YOU SAY IS YOUR RACE? - If the respondent has responded 'yes' to 11.2. 'Are you Hispanic or Latino?' , then ask 11.3. in this manner:

'Are you white-Hispanic; black-Hispanic; Asian and Hispanic; Native Hawaiian or Other Pacific Islander and Hispanic; American Indian, Alaska Native and Hispanic; or other race and Hispanic?'

Mark all answers given by the respondent.

If they respond 'other' then type what they say in the pop up box, and hit 'enter' to move to the next question.

MARITAL STATUS: When a respondent answers 'common law marriage', code this as 'A member of an unmarried couple 6'. The CDC has taken the stand that to maintain consistency among states no common law marriage will be recognized.

HOW MANY CHILDREN . . . How do we code children that spend exactly 50% of their time in each of two households?

Probe for who claims this child/these children as a tax deduction. The parent that claims the tax deduction would also claim the child/ children for BRFSS purposes.

INCOME: 'Is your annual household income from all sources.'
Emphasis that this questions is about household income not individual income.

WEIGHT AND HEIGHT: Round weight up and height down.
For example 128 $\frac{1}{4}$ pounds would be 129 pounds.
5 feet 11 $\frac{3}{4}$ inches would be 5 feet 11 inches.

PHONE LINES: 'Do you have more than one telephone number . .?'
Do not count dedicated fax or dedicated computer lines, beepers, pagers, or cell phones.

RESPONDENTS ASKS DO JOINT'S COUNT TOWARD 100 CIGARETTES?

Probe: This question is only counting tobacco.

HIV/AIDS: Blood plasma is counted as 'blood donation' for all HIV questions.

If a person has completed only one semester of college, or maybe even two semesters of college, should it be marked with option “4. Grade 12 or GED” or option “5. College 1 year to 3 years?” The full BRFSS question is shown below:

What is the highest grade or year of school you completed?

1. Never attended school or only attended kindergarten
2. Grades 1 through 8 (Elementary)
3. Grades 9 through 11 (some high school)
4. Grade 12 or GED (High School graduate)
5. College 1 year to 3 years (some college or technical school)
6. College 4 years or more (college graduate)

If the student did not complete an academic year (only went 1 semester but did not finish 2 nd semester or went 1 – 2 quarters but did not finish 3 rd quarter) the response should be “4. Grade 12 or GED”. If the respondent finished at least 2 semesters or 3 quarters before they quit the response should be “5. College 1 year to 3 years (some college or technical school)”

For the above question the respondent says “an Associates degree” for their college degree what is the correct response?

An Associates degree should be coded “5. College 1 year to 3 years (some college or technical school).”

Eligible Household (see Policy memo 95.1):

A housing unit which has a separate entrance, where occupants eat separately from other persons on the property, and which is occupied by its members as their principal or secondary place of residence.

Excluded are:

1. Vacation homes occupied by household members for less than 30 days per year
2. Group homes (sororities and fraternities, half-way houses, shelters, etc.
3. Institutions (nursing homes, college dormitories, etc.)

Note that the respondent does not have to be a resident of the state. The only have to live in the state (or plan to live in the state) for the 30 days in the year. The days do not need to be consecutive.

Household Member (see Policy memo 95.1):

All related adults (age 18 or older), unrelated adults, roomers, and servants who consider the household their home, even though they are not home at the time of the call, are

considered household members. However, an adult family member who is currently living elsewhere at college, a military base, a nursing home, a jail, etc. is not considered a member of the household.

If a person lives on a military base in a single family house or apartment you should include the household. According to Michael Link “If the person lives in a single family house or apartment, regardless if it is on a military base, the household is eligible. What would not be eligible would be group quarters on the base.”

If any adult is currently living in a household (not visiting), then they are eligible for the time they are living in the house. If a student has just moved back to campus (or anywhere out of the house) they cease to be eligible in the household they moved from.

This means if a college student is living at home for the summer you should include them in the household if you are interviewing the household during the summer.

Some Probes:

Here is a list of probes from various locations including MO, NE, NM, OK and the BRFSS web site. Probes for the list below are provided.

- Not Interested
- I don't have time/I'm busy/it's not a good time.
- There is no convenient time to call back.
- I don't do phone surveys. Mail it to me.
- I don't like to do surveys. Why don't you call someone else?
- I was just interviewed last week. Try someone else.
- I don't have anything to do with public programs/I get my health care from my private doctor/HMO/military:
- I just moved to this state; I don't qualify as a resident yet:
- Correct respondent is in and out, works odd hours. (or) Call back next week.
- Handling spouse when you need to interview the other spouse.
- I told you the other day that we are not interested.
- What is this survey about?
- I don't know anything about health/medicine.
- I never exercise/smoke/drink.
- How are you going to use this information?
- What's in it for me
- Who will see this information?/Who wants to know all these things?
- I'm not interested in this sort of thing/I don't do surveys on the phone:
- Why do you need to know how many adults live in this household?
- Why can't you interview me?
- Why interview me?
- How do I know the survey is legitimate?

- How do I know that you are really an interviewer for this survey?
- I don't want to buy anything:
- How long is this going to take? I don't have much time:
- Doesn't the government have better things to do with our tax dollars, etc.?
- Release of information:
- Race – General.
- Race - I'm Italian (or some other nationality).
- Race – I'm multi-racial:
- Race – I'm Hispanic:
- Income; I think this is very personal/Why do you need this information.
- Respondent speaks a foreign language.
- Age.
- Age - I don't give my age over the telephone.
- Height.
- Weight - I think this is very personal. Or, why do you need the information?
- What's an occasion?
- DNC List.
- Caller ID.
- Unlisted Number. How did you get my telephone number?
- Zip Code.
- Respondent does not wait for interviewer to read all items.
- Standard responses for explaining why a question is asked.

Suggested responses to initial refusals:

Not Interested:

Probe: I can understand that with all the surveys being taken. We are not telemarketers. I'm from the State Health Dept. I'm not trying to sell anything. This study is designed to understand the health habits of the residents of all counties. Your input is important so we can develop and make better decisions in planning health programs. The interview will only take a short time.

NE Probe: I can understand with all of the surveys being taken, but I'm from the Nebraska Health and Human Services System, not a political group or business. I'm not selling anything. This study is designed to see how the health habits of the residents of our state affect their chances of getting long-term illnesses like cancer, heart disease, or high blood pressure. Your input is important so we can make better decisions in planning health programs. The interview will take only a short time.

or NE Probe: Oh, I'm so sorry because most people find the study very interesting. You know, the interview only takes a short time and the results will be used to

help the government planners understand people's health needs better. This is an anonymous survey, which means no one will be able to attach your answers to you. All of your answers have to be kept completely confidential by law.

NE Still not interested: I'm sorry to inconvenience you, but we must give each household member an opportunity to participate, and there is a good chance that someone other than yourself is the person I need to interview. So could you please tell me how many members of your household are 18 years of age or older?

Missouri says that the rebuttal below is the rebuttal used most often by Missouri. They found that it works A LOT better than any rebuttal they have ever used. It's from the BRFSS User Guide. They say the rebuttal usually grabs the respondent's attention.

MO Probe: I would like to give you a little more information because we want everyone to have a chance to participate. The survey is designed to determine the number of people who are at risk for the leading causes of premature deaths and disabilities, such as cardiovascular disease, cancer, and motor vehicle crashes. The data will be used to improve programs that promote the reduction of these conditions.

I don't have time/I'm busy/it's not a good time:

Probe: I understand. Let's make an appointment for another time. Someone can call you later. [If the same day is not possible, try to schedule an appointment for as soon as possible.]

or Probe: I'll move through the interview as quickly as I can to save you time. Let me start and tell me if I'm going to fast. [Ask the first question immediately and continue at a brisk pace.]

There is no convenient time to call back:

Probe: We will be making calls for the next few days. What day is best for you?

I don't do phone surveys. Mail it to me:

Probe: Unfortunately we can only conduct this survey over the phone. The survey will only take a few minutes, and most people find the questions interesting. Let me start, and you can see what they are like. If you don't want to answer a specific question, let me know and I'll proceed to the next question. [Ask the first question immediately.]

I don't like to do surveys. Why don't you call someone else?

Probe: The survey will only take a few minutes, and it's very important that we include everyone we call so our results will be scientifically correct.

or Probe: I understand that many people feel that way, and because they don't want to be included in surveys, their views and experiences get overlooked by the people who use the survey information for planning and other purposes. That's why it's very important for you to participate, so people like you are not left out.

I was just interviewed last week. Try someone else:

Probe: That sounds like another survey. This is the *statename* Department of Health. This is a survey of health practices and will take a few minutes. It's very important that we include everyone we call so we can make better decisions about how money and programs can be better used to benefit our state's residents.

I don't have anything to do with public programs/I get my health care from my private doctor/HMO/military:

Probe: All health-care providers, public or private can use the information we are collecting to improve services and plan better programs.

I just moved to this state; I don't qualify as a resident yet:

Probe: If you are not living in this state and you plan to live here, the *statename* Department of Health considers you a resident.

Correct respondent is in and out, works odd hours. (or) Call back next week:

Probe: These statements might be excuses and will probably be repeated at a subsequent call. Try to retain control by establishing an appointment. If a person does not provide a specific date and time, again explain the purpose of the study and the reason it is important to interview the correct respondent.

Handling spouse when you need to interview the other spouse.

Probe: [Read the introduction again and explain] We are conducting a statewide study in which we need an equal number of men and women to participate. It is important that we speak to your husband/wife. [If necessary, explain further by

saying] I will be asking a few questions about health conditions and lifestyles such as diabetes, exercise, cholesterol, etc. This information is very important to improve the programs of the *statename* Department of Health.

Suggested response to second refusal:

I told you the other day that we are not interested:

Probe: I apologize for my persistence, but our study requires that we call everyone back so that we can provide you with more information about the purpose of our study, how we are going to use this information and answer any questions or concerns that you may have about the study. [Explain the purpose of the study and immediately go into the next question. Do not pause.]

Probe: I apologize for my persistence, but our study requires that we call everyone back so that we can provide you with more information about the purpose of our study, how we are going to use this information and answer any questions or concerns that you may have about the study. [Explain the purpose of the study and immediately go into the next question. Do not pause.]

Suggested responses to common questions and comments:

What is this survey about?

Probe: We are interviewing adults about lifestyle risk behaviors associated with the major causes of death and disability. I will be asking you a few questions about health conditions and lifestyle such as diabetes, exercise, cholesterol, etc. Such information is very important for effective planning.

I don't know anything about health/medicine:

Probe: Let me assure you that this is not a test. We only want to ask you about your personal health practices.

or Probe: There are no right or wrong answers to the questions. We just want to know what experiences people are having in this area. Your participation is terribly important. You see, the households are selected to make an accurate sample of the country. Each one represents thousands of others of the same age, education,

medical history and so forth. If you don't participate, all these households you represent will be missing from the totals and the picture will be very misleading.

I never exercise/smoke/drink:

Probe: That's okay. We need to talk to people who never exercise/smoke/drink, as well as those who exercise/smoke/drink a lot.

How are you going to use this information?

Probe: Everyone's responses will be combined to give us information on the health practices of people in our state. Once collected, this information will be used for planning purposes at all levels of government to develop more effective and appropriate health programs. An example would be heart disease, which is a leading cause of death in Nebraska as well as in the United States. Some of the risk factors associated with heart disease are smoking, obesity, hypertension and high blood cholesterol. If we could get those people who smoke to quit smoking, those who are overweight to lose weight, and those who have high cholesterol to reduce their cholesterol level, we will have reduced the total number of people dying from heart diseases.

What's in it for me?

Probe: The data will be used to improve programs to reduce disease and disability, which will directly benefit you and the ones you know.

Who will see this information?/Who wants to know all these things?

Probe: After the survey information is collected, it is sent to the Centers for Disease Control and Prevention in Atlanta, Georgia. The survey results will be analyzed and used by the Nebraska Health and Human Services System and U.S. government to plan programs and activities directly related to the health problems identified by this survey. The survey results will be published in local pamphlets, local and statewide newspapers, and national health journals.

I'm not interested in this sort of thing/I don't do surveys on the phone:

Probe: I'm sorry. It's a very interesting study. [If a specific reason is not identified, choose an issue to discuss, e.g., the time it takes to complete the interview, importance of the study].

Why do you need to know how many adults live in this household?

Probe: Our survey requires us to select an adult member from your household with whom to do the survey. One of your adult household members will be randomly selected by the computer. This is done so that we can be sure that our study results represent all adults in our state. This way, we can be sure that we have a good representation of men and women, as well as different age groups.

Why can't you interview me?

Probe: I would like to but our survey protocol calls for us to do the interview with a randomly selected adult member of your household. This is done so that we can be sure that we have a good representation of men and women, as well as different age groups.

Why interview me?

Probe: Scientific procedures were used to select a random sample of telephone numbers within our state.

How do I know the survey is legitimate?

Probe: [Repeat appropriate parts of the introduction, empathize with the respondent and explain:] The survey is an important effort of the *statename* Department of Health and the Centers for Disease Control and Prevention in Atlanta, Georgia, to learn more about the health behavior risks of our state's adults so that certain policies and health promotion programs can be more effectively developed. If you want to verify this is a legitimate survey, you may call the *statename* Department of Health at 1-xxx-xxx-xxxx.

How do I know that you are really an interviewer for this survey?

Probe: You may call my supervisor at 1-xxx-xxx-xxxx, his/her name is ____.

I don't want to buy anything:

Probe: I am not selling anything. This is an important survey sponsored by the Centers for Disease Control and Prevention, for the State of *statename*.

How long is this going to take? I don't have much time:

Probe: The interview will only take a few minutes and I'll move through the interview as quickly as I can to save you time. Let me start, and you tell me if I'm going too fast. [Ask the first question immediately and continue at a brisk pace.]

Doesn't the government have better things to do with our tax dollars, etc.?

Probe: [Do not argue or justify; make short, neutral comments such as:] Your opinions are very interesting and your answers will help the government spend tax dollars more wisely. The survey will only take a few minutes. [Ask the first question.]

Release of information:

Probe: A report summarizing this information will be published. If you would like, you may call us or write to us at the central location for a copy. Or, if you'd like to leave your address we can send you a copy of an already published report from earlier surveys.

Race – General:

Probe: We ask for your race to make sure that all people of different races are represented.

Race - I'm Italian (or some other nationality):

Probe: That's your nationality we need to know your race. Are you

Race – I'm multi-racial:

Probe: Then you can select several races from the following list (read list again).

Race – I'm Hispanic: Hispanics can often seem offended when you ask them their race. They will often repeat "Hispanic" (or "Latino"). Although "Hispanic" is an

ethnicity (not a race) it is hard to explain this to them (in truth it's hard to explain this to most people). You can try the probe below but often someone who said they were Hispanic will still not answer the race question properly. Try to get them to select a race but if you find they are getting agitated or annoyed just move on and put whatever they said in the "other" choice.

Probe: If the respondent has responded 'yes' to 'Are you Hispanic or Latino?' , then ask the Race question:

'Are you white-Hispanic; black-Hispanic; Asian and Hispanic; Native Hawaiian or Other Pacific Islander and Hispanic; American Indian, Alaska Native and Hispanic; or other race and Hispanic?'

Income; I think this is very personal/Why do you need this information:

Income is a very sensitive question for many people. Many individuals will not want to answer this question. You need to convince them that although they do not need to give you a specific income value they do need to give you an income range. You can say or not say the first group of words shown in *Italics* in the probe below.

Probe: *We are not trying to sell anything and* I only need the range within which your total household income falls. I do not need to know the actual income. All of this information will be used for statistical purposes only to identify how the risk for chronic diseases are distributed within people of different income groups.

Respondent speaks a foreign language:

Probe: Say "Hola" (Spanish for hello) and see if they say "Hola" back.

If its Spanish mark it a Spanish interview (Ctrl – S) and put a message that says you feel it may be a Spanish interview. If you feel it is not Spanish say that in the message. If your CATI center does Spanish interviewing do not mark this as a language barrier but mark it as an appointment.

Age:

Probe: We ask your age because some of the programs planned from this information will be for people in certain age groups. All the information contained in this study is strictly confidential and used for research purposes.

Age - I don't give my age over the telephone:

Probe: I understand, but it's very important because some of the programs planned from this information will be for people in certain age groups. All the information obtained in this study is strictly confidential and used for research purposes. [If

respondent is still hesitant, offer an age range. Example: Are you between 20 and 30; 30 and 40, etc. Then record the middle of the range given. If the respondent says between 30 and 40, record 35.]

Height: A respondent say they are “about 6 feet.”

Probe: I need an answer in feet and inches. Could you tell me in feet and inches how tall you are.

Weight - I think this is very personal. Or, why do you need the information?

Probe: I would like to remind you that I do not know with whom I am speaking and this information will only be used for statistical purposes to determine the weight status of our adult population.

or Probe: I would like to remind you that all this information is confidential and will be combined with that from others who participate in this study. This question will only be used for statistical purposes to determine the weight status of the population and it’s relationship to chronic disease.

What’s an “occasion”:

Probe: "Whatever an occasion means to you

DNC List:

Probe: We are not trying to sell anything and according to the DO NOT CALL LIST rules, calls made for the purposes of conducting a survey, like this one, are allowed. We are gathering information for the Center for Disease Control.

Caller ID:

Probe: This is in outbound calling center, therefore our number will not show up on your Caller ID.

Unlisted Number. How did you get my telephone number?

Probe: Your telephone number was randomly generated by a computer, so every phone number is eligible, even unlisted numbers.

or Probe: The telephone numbers were generated by the computer. We have no way of knowing whose number we are calling or if it is a business or residential number.

Zip Code:

Probe: It will help us evaluate health risk factors in specific areas.

Respondent does not wait for interviewer to read all items:

Probe: I am required to read all the choices. This is done to make sure you pick the best one from all the choices available.

(You could also add) I realize you may know which one to pick right away but I am required to read them all.

Standard responses for explaining why a question is asked:

Probe: For demographic variables like AGE, SEX, RACE, etc., if a respondent asks Why do you want to know this? Or, It's against the law to ask discriminating questions. Respond as follows: People's chances of illness may vary according to their _____. Your answer may help us learn how we can lower someone's chance of becoming ill and provide better medical care.

REFUSAL CONVERSION

- by OSDH Call Center
Presenter: Sylvia Sims

Establishing Rapport

- Introduce yourself and emphasize where you are calling from
- Explain to the respondent you are not a telemarketer
- Take time to convince respondent the importance of the study
- Project confidence and professionalism

What is a Refusal Conversion?

– A respondent who initially refuses the interview but is later persuaded to complete the survey

Most Important Tasks

- Sound interested on return call
- Put a smile in your tone of voice
- Put respondent at ease so they can feel free to say exactly what they think

Why should we carry out Refusal Conversions?

- It is necessary to increase response rate
- To ensure high quality data for the study

Everyone likes to feel importance

- Sound Excited!
- Make them feel like it is their lucky day
- Emphasize the importance of the study



DON'T'S



- Don't be discouraged about how many refusals you get
- Don't be afraid to call the respondent back
- Don't be a social worker trying to solve their personal problems
- Don't read in a hurry

- Use neutral questions or statements to encourage a respondent to clarify a response or elaborate on an inadequate response.

Example:

- What do you mean?
- What is your best guess?
- Could you be more specific, etc.

- Don't indicate surprise, pleasure or disapproval
- Don't suggest answers or lead respondent to specific answer
- Do not assist the respondent in selecting responses
- Do not ask or say to the respondent:
 - **Would you mind answering some questions?**
 - **Do you have some time now?**

- Recognize that many factors may result in a refusal at the time of initial call
 - Respondent is too busy
 - Respondent is in a bad mood
 - Respondent has food on the stove



DO'S



- Always have a positive attitude
- At least try to start the survey
- Ask the first question without pausing
- Maintain control of the interview



- The best defense against the respondent's discouragement is to realize their rejection is usually an expression of stress, fear and resistance - NOT a negative judgment of your competence.

Predicting the Persistence and Performance of Newly Recruited Telephone Interviewers

MICHAEL W. LINK
Centers for Disease Control and Prevention

The impact of personal characteristics and work environment on telephone interviewer job persistence, efficiency, and effectiveness is examined. Data included interviewer demographics, experience, skills, and attitudes, as well as time-clock and production statistics from 383 newly recruited telephone interviewers working on two large-scale national surveys. Findings indicate that interviewer success results from a complex mix of individual and workplace characteristics. Workplace factors such as location of facility, shift worked, and study assignment appear more relevant to predicting persistence in the job, while individual attributes, including telephone skills, previous experience, and having a confident yet realistic attitude toward survey research are more closely related to job performance. These findings have implications for both the recruitment of and the training of successful telephone interviewers.

Keywords: survey research; telephone surveys; survey interviewers; survey methodology

As nonresponse has increasingly become a problem in survey research, survey practitioners continue to look for ways to improve response rates and minimize the potential for bias. Study design (e.g., sample population, questionnaire content and length, data collection mode, etc.) and implementation (i.e., recruiting, training, mentoring, and monitoring of effective interviewers) are two often-cited factors in this regard (Groves and Couper 1998). This article focuses on interviewers, examining some of the factors related to their persistence and performance on the job. In particular, interviewers' background characteristics, experience, basic telephone and computer skills, attitudes toward the job, and work environment are related to both their persistence through the difficult early weeks on the job and their efficiency and effectiveness.

It is apparent to anyone who has spent more than 10 minutes at an interviewer training session or in a monitoring room listening to an interview that interviewers vary greatly in their skills and abilities to persuade sample members to participate in a survey. Experience is one of the most often-cited

attributes linked to interviewer success (Durbin and Stuart 1951; Groves and Fultz 1985; Couper and Groves 1992; Martin and Beerten 1999), although some have disputed this finding (Singer, Frankel, and Glassman 1983). Groves and Couper (1998) caution researchers against unqualified emphasis on experience, however, noting that some interviewers may have longer tenures (i.e., be classified as more “experienced”) because they came to the job with better persuasive skills and thereby persisted, rather than gaining those persuasive skills as they become more experienced.

Interviewers’ attitudes and expectations also appear to play a role in determining interviewer success, as interviewers with more positive expectations and confidence tend to post higher response rates (Singer, Frankel, and Glassman 1983; Groves and Couper 1998; De Leeuw 1999). Interest in the role of interviewers’ attitudes as they contribute to survey nonresponse sparked the initiation of the International Survey of Interviewer Attitudes at the 1998 International Workshop on Household Survey Nonresponse in Mannheim, Germany. One report generated from that study found that an interviewer’s attitude, gender, and age were important predictors of job success (Japac and Lundqvist 1999). Those with more positive attitudes, those who were women, and those aged 52 years or older had higher response rates than other interviewers did. Likewise, Martin and Beerten (1999) found that older female interviewers, those with more experience, and those who were more confident had higher response rates.

Groves and Couper (1998) posited that interviewer attributes alone might not be the most important component determining the ability to gain cooperation. Instead, the interaction of interviewer characteristics and sample member characteristics may be the key. Furthermore, interviewer experience, sociodemographic attributes, project assignment, and the design features of the study itself affect interviewers’ expectations and their behaviors. These behaviors in turn interact with those of the sample members to drive respondents’ cooperation.

This article focuses on factors related to job persistence and measures of performance among newly hired telephone interviewers. In particular, it examines how interviewers’ sociodemographic characteristics, previous experience, relevant skills, attitudes, and workplace affect their persistence in their job as well as their efficiency and effectiveness as interviewers. It is important to note that several other factors have been hypothesized to relate to successful telephone interviewing, but they are not examined here. For instance, the quality of an interviewer’s voice (e.g., tone, accent, pitch, speed, clarity) has been shown to affect refusal rates, as interviewers with more “attractive” voice qualities have lower refusal rates (Oksenberg, Coleman, and Cannell 1986). Personality is another factor that may have an impact

(Hyman 1954; Axelrod and Cannell 1959, Morton-Williams 1993), but a strong link has yet to be demonstrated between a specific set of personality characteristics and interviewer performance. In addition, this article does not assess directly the factors related to data quality. This would include measures such as interviewer item nonresponse rates, monitoring scores for questionnaire administration, and assessments of data entry errors. Unfortunately, the data to systematically examine data quality at the interviewer level were either inaccessible (e.g., interviewer ID was maintained separately from survey responses) or not collected in a systematic manner.

New recruits were the focus rather than a cross section of the entire interviewing staff for several reasons. First, this selection provided an opportunity to follow a relatively large set of individuals from their first day on the job as an interviewer. The primary goal was to understand better the factors that produce skilled interviewers who will have longevity in their jobs. This is one of the few studies conducted with such a group. Most investigations of interviewers begin with a cross section of interviewers with varying levels of experience (some with none at all) and compare performance. Such an approach presents something of a “chicken and egg” problem because experience tends to become the dominant variable at play, overshadowing other potentially important factors. It may be more useful—and challenging—to determine how newly hired interviewers become “good” interviewers. What factors separate them from their lower performing peers or from individuals for whom interviewing is a brief stop on their journey to another career? The data and analysis presented here are a first step in understanding these important, complex questions.

METHODS

During 2000, two large-scale national studies conducted in the United States required the hiring of more than 400 new telephone interviewers. Survey 1 was a third follow-up in a longitudinal cohort study that involved locating, contacting, and interviewing just less than fifteen thousand adults, all approximately 26 years of age. The survey focused on educational attainment, job history, and socioeconomic issues. Survey 2 was a cross-sectional survey that required locating, contacting, and interviewing more than sixty thousand students from more than one thousand randomly selected post-secondary institutions across the United States and Puerto Rico. The survey included undergraduate and graduate students of all ages at public and private institutions and focused primarily on how students pay for their postsecondary education. Both surveys were administered using computer-assisted

telephone interviewing and lasted approximately 20 to 30 minutes; however, because Study 1 was a longitudinal study involving sample members who had been interviewed in at least one of the previous two survey rounds, that study was viewed as being the “easier” of the two studies for interviewers to complete. Data collection for Survey 1 began in late January 2000 and ended in August 2000; Survey 2 began in late May 2000 and continued through February 2001.

In all, twenty-eight interviewer training sessions of approximately twenty-four trainees each were held for these two studies; however, only interviewers from the first five training sessions in Survey 1 and first fifteen training sessions for Survey 2 were included in the analysis presented here. Those hired toward the end of each survey were not included in this analysis because they began production using previously called (and more difficult to reach) cases. All interviewers included in the analysis began production with “fresh,” previously uncalled cases. This selection allowed me to make more valid comparisons of their productivity while minimizing the potentially confounding effects of working subsets of more difficult cases (such as refusal cases or high attempt with no contact cases).

The training sessions and protocols for these two surveys were nearly identical, involving 8 hours of general interviewer training for new recruits and 20 hours of project-specific training, including considerable hands-on practice with the instrument, refusal avoidance techniques, and responses to commonly asked questions. The pool of trainers was equally experienced in interviewer training skills across the two studies, although there was variation from session to session in terms of the staff who actually conducted each training.

Measures Used in Analysis

Persistence in the job and efficiency and effectiveness of interviewing were measured using individual production data from the two surveys and from time-clock information that captured the number of hours interviewers spent on various tasks. These three measures were selected because they (or similar metrics) are often used to monitor telephone interviewer productivity within call centers. The period for analysis was the first 100 hours interviewers spent on the telephone after training (the 100 hours are production hours, excluding training, breaks, quality control sessions, and other nonproduction tasks). Although the 100-hour mark is by no means the point at which interviewers “peak” in their performance, it was chosen as the cutoff point for several important reasons. First, for the majority of

interviewers, the 100-hour mark represented a period of approximately 5 to 6 weeks on the telephone. Experience has shown that most new recruits who do not persist in their jobs as interviewers will leave sometime before reaching this mark. Those who make it to 100 hours tend to persist considerably longer. Second, because studies tend to become more difficult over their lifecycle as the easy interviews are obtained and nonrespondent conversion increasingly becomes the norm, we limited this potential confounding effect by capturing production data for these interviewers at roughly equivalent times in the survey lifecycle.

Persistence in the job was measured as the number of hours an interviewer worked in production up through the 100-hour mark. Interviewers needed to work at least one production hour to be included in this analysis. The potential range for this variable was 1 to 100 hours.

Production efficiency was measured as the ratio of hours worked to completed interviews obtained (production hours/completed interviews). Interviewers who take longer to complete fewer interviews are less efficient on the telephone than those who complete more interviews in a shorter time. Because of differences in study design (i.e., sample populations, contacting success rates, etc.), I could not simply combine the raw hour per completed interview scores for the two surveys. To pool the information for the two sets of interviewers, hours per completed interview scores were calculated for the two studies independently and then transformed into z scores as follows:

$$\begin{aligned} z \text{ score for efficiency measure} \\ = ((\text{HRCPL}_y - \text{HRCPL}_{\text{mean}})/\text{HRCPL}_{\text{sd}})^* - 1. \end{aligned}$$

This transformation created a positive/negative indicator of production efficiency wherein positive values indicate above-mean levels of interviewing efficiency (i.e., lower hours per completed interview ratios) and negative values indicate below-mean levels of interviewing efficiency (i.e., higher hours per completed interview ratios).

Interviewing effectiveness was calculated in a similar manner. This measure was based on the ratio of the number of refusals obtained by the interviewers during their first 100 hours on the telephone divided by the sum of the number of refusals plus completed interviews they obtained during that same period. None of these interviewers worked on refusal conversion cases during their first 100 hours in production, and so success in converting these more difficult cases did not come into play for this analysis. Once again, to pool the information across the two studies, the refusal per

refusals + completed interview scores were transformed into standardized z scores as follows:

$$z \text{ score for effectiveness measure} \\ = (((\text{RF}/(\text{RF} + \text{CPL}_y)) - (\text{RF}/(\text{RF} + \text{CPL}_{\text{mean}})))/(\text{RF}/(\text{RF} + \text{CPL}_{\text{sd}}))) * -1.$$

Interviewers with positive scores on this transformed variable had lower (or more favorable) refusals per refusals + completes ratios than did interviewers with more negative scores.

The data used to construct the independent variables in this analysis come from several sources: a pretraining survey of all newly recruited interviewers, time-clock records, production data, and an interviewer schedule database. As part of the first hour of general training, a 15-minute survey was administered to capture information about interviewers' backgrounds, previous experience, relevant skills, and attitudes and expectations of the interviewing processes. The survey was voluntary and completed by 383 of the 411 (93%) interviewers recruited for the two surveys.

The specific data from the survey used here include basic demographic information (age, gender, race, years of education, whether currently enrolled in college, whether holding another job for 20 or more hours per week), previous experience (experience as an interviewer or in a related field, such as telemarketing, fundraising, or telephone customer service), and relevant skills (time spent using a telephone and computer each week, comfort level with keyboarding and typing).

The survey also contained questions designed to measure interviewers' initial attitudes toward and perceptions of the job (e.g., confidence in one's ability to conduct the work and perceptions of respondents' behavior during an interview). Interviewer confidence was measured on a five-point scale using the question "How confident do you feel to begin your job as a telephone interviewer—not at all confident, not too confident, somewhat confident, very confident, or extremely confident?" Interviewer optimism was measured by creating an additive scale ranging from 3 (*optimism low*) to 15 (*optimism high*) based on the following questions, each of which was measured on a five-point scale (*strongly disagree, somewhat disagree, neither agree nor disagree, somewhat agree, and strongly agree*):

- people often given answers simply to get the interview over with,
- many people often exaggerate or make up information when being interviewed, and
- no matter what you do, there are some people who will never participate.

As a test of reliability, the Cronbach's alpha was .67, indicating that the scale is of moderate to good reliability.

Information was also collected to control for several work-related factors I thought might be important in the analysis: study assignment, shift, and call center at which an interviewer worked. An indicator of study assignment allows us to control for potential differences in the studies that might have affected production. A shift-worked indicator was added to control for potential differences in work status (full-time vs. part-time) and sample member contactability across shifts. Day-shift interviewers (those working between 8:30 a.m. and 5:00 p.m.) are far more likely to work full-time hours (35 hours or more) than are those working evenings (5:00 p.m. to midnight) or weekends. Production rates can also vary across shifts, with contacts tending to be made more frequently during evening and weekend shifts (when sample members are more likely to be home) than during day shifts. An indicator of shift worked provided a broad control for these possible influences.

“House effects” or site differences can also have an impact on persistence and production numbers. Two call centers run by the same data collection organization were used to staff these surveys. Call Center 1 was in a large commercial park located approximately 10 to 12 miles from the areas in which most of the interviewers hired for this facility lived. Call Center 2 was located in a town smaller than that of Call Center 1 and was near a large university, not a commercial area. In addition, Call Center 1 had a 20-year history, whereas Call Center 2 opened just 2 months before Survey 1 began. None of the interviewers on these two studies worked at both sites. To control for potential house effects, a site variable was added to the analysis indicating at which call center the interviewer worked.

RESULTS

Characteristics of the 383 interviewers included in this analysis are shown in Table 1. Although not a representative sample of all interviewers working in the field of survey research, the sample does contain a good mix of individuals from diverse backgrounds, different skill and experience levels, and of varying attitudes. The variables with the lowest level of variability included education level (most had some college or more education), shift worked (a large majority worked evenings and weekends), and study assignment (the largest number of interviewers were assigned to the cross-sectional Study 2).

Persistence on the Job

Of the newly recruited interviewers who filled out the survey, 244 (64%) remained on the job through the 100-hour mark; 139 (36%) dropped out before clocking 100 hours of production time. Among those who dropped

TABLE I
 Frequency Distribution of Interviewer Characteristics and Work Environment ($n = 383$)

<i>Variable</i>	<i>Percentage</i>
Gender	
Male	29.8
Female	70.2
Age (years)	
< 30	75.7
30+	23.2
Race	
White	37.7
Other	62.3
Education	
High school or less	17.2
Some college or more	82.8
Currently enrolled in college	
No	52.0
Yes	48.0
Work another job 20+ hours per week	
No	77.5
Yes	22.5
Previous interviewing experience	
No	78.6
Yes	21.4
Hours per week on the telephone	
< 5	60.3
≥ 5	39.7
Hours per week on the computer	
< 5	59.0
≥ 5	41.0
Keyboarding skills	
Less than touch-type	31.3
Touch-type	68.7
Confidence	
Low	36.6
High	63.4
Optimism	
Low	68.1
High	31.9
Primary shift worked	
Weekdays	15.9
Nights/weekends	84.1
Call center	
Call Center 1, in commercial office park	75.7
Call Center 2, near university	24.3
Study worked	
Study 1, longitudinal follow-up	14.6
Study 2, cross-sectional baseline	85.4

out, the number of hours worked ranged from 4 to 98 hours, with a median of 38 hours worked. Ordinary least squares (OLS) regression techniques were used to estimate a model of persistence on the job, using predictors measuring demographic characteristics, previous experience, relevant skills, attitude and perception of the job, and work environment (see Table 2).

Although logistic regression techniques may have been a more appropriate means of modeling this dependent measure given its somewhat skewed distribution, comparisons of OLS and logistic models showed no substantive differences in the findings. OLS was used, therefore, to maintain consistency across the analyses and allow for comparisons with the efficiency and effectiveness models. In Table 2, the entries are standardized OLS regression coefficients. In terms of individual characteristics, both current enrollment in a college or university and telephone usage were significantly related to job persistence. Those who said they were currently enrolled were much more likely to persist to the 100-hour mark than were those who said they were not currently enrolled. Likewise, interviewers who said they spent 5 or more hours on the telephone either at work or at home were significantly more likely to persist to 100 hours than were those who used the telephone less often. None of the other individual-level characteristics, including gender, age, race, previous experience, relevant skills, or attitude toward survey research, had a significant effect on job persistence.

Work environment was, however, clearly a determining factor. Those hired to work night and weekend shifts were far more likely to drop out before reaching the 100-hour mark than were those hired to work the day shift. The site at which the interviewers worked also had a significant impact. Interviewers hired at Call Center 2 (which was close to its labor pool) tended to stay longer than those hired at Call Center 1 (which was farther from its labor pool). Project assignment also made a significant difference. Those hired for Survey 1 (follow-up survey) were significantly more likely to remain 100 hours or more than were those hired for Survey 2 (cross-sectional survey).

Interviewer Efficiency

Turning to interviewer efficiency, OLS regression was used to model data from the subset of 244 interviewers who remained on the job through the 100-hour mark (see Table 2). The dependent variable is a standardized (z score) measure of hours per completed interview. The efficiency scale was calculated so that positive scores indicate greater efficiency. Scores on this variable ranged from -5.1 to 1.2 , with a median value of -0.2 . The model indicates that several individual-level factors were significantly related to interviewer efficiency. Women and white interviewers tended to have lower hours per completed interview ratios than did men and nonwhite

TABLE 2
Standardized Ordinary Least Squares Regression Coefficients for
Interviewer Persistence, Efficiency, and Effectiveness by Demographics,
Experience, Skills, Attitude, and Work Environment

<i>Characteristic</i>	<i>Standardized B</i>		
	<i>Persistence</i>	<i>Efficiency</i>	<i>Effectiveness</i>
Demographics			
Gender (female)	.09	.14*	.07
Age (30+ years)	-.09	.08	-.02
Race (white)	-.08	.13*	.04
Education (some college or more)	-.06	.04	.05
Enrolled in college	.16**	.13*	-.09
Other job (20+ hours)	.01	.14	.13
Experience			
Interviewed previously	.08	.10	.32**
Relevant skills			
Hours on phone (5+/week)	.11*	-.01	.10
Hours on computer (5+/week)	.01	-.05	-.07
Keyboarding (touch-type)	.03	.03	.01
Attitude			
Confidence	.01	-.03	-.03
Optimism	.02	-.39*	.05
Work environment			
Shift (nights/weekends)	-.19***	.05	-.03
Site (Call Center 2)	.16**	-.32***	-.10
Project (Study 2)	-.27***	.11	.02
<i>R</i> ²	.21	.16	.15
<i>n</i>	383	244	244

NOTE: Dependent variables: persistence = hours worked through first 100 hours on the job (range = 4 to 100; median = 100); efficiency = number of hours worked/number of completes during first 100 hours on the job, converted to z scores, where more positive numbers indicate greater efficiency (range = -6.6 to 1.5; median = 0.3); effectiveness = number of refusals/number of refusals + number of completes during first 100 hours on the job, converted to z scores, where more positive numbers indicate greater effectiveness (range = -3.5 to 3.1; median = -0.2). **p* < .05. ***p* < .01. ****p* < .001.

interviewers, respectively. Student interviewers also tended to perform better than those not currently enrolled in school. Previous experience as an interviewer or in a similar position was not significantly related to interviewer efficiency nor were the skill-related variables.

The relationship between interviewer attitudes and efficiency is an interesting one. Among interviewer attitudes, confidence was not related to interviewer efficiency, but optimism about sample members' reactions was significantly

related (see Table 2). Interestingly, the relationship between optimism and interviewer efficiency is inverse. In other words, those who tended to have a more optimistic view of how sample members would react on the phone (e.g., giving answers just to get the interview over with, exaggerating or making up answers, or refusing to participate in a study) tended to do more poorly as an interviewer (at least in terms of hours per completed interview) than did those who began the job with a somewhat more pessimistic attitude.

This finding led us to examine the interaction between confidence and optimism more closely. Classifying interviewers into a four-cell typology as high or low in terms of confidence and optimism, we calculated the mean values of the efficiency measure for each cell in this two-by-two table (see Table 3). The data indicate that the more efficient performers tended to be those who were highly confident yet more pessimistic about how sample members would respond to surveys. Conversely, the worst performers tended to be just the opposite—those with low levels of confidence and a somewhat “rosy” expectation of how sample members would respond to surveys.

Finally, work environment, in particular the site at which an interviewer works, was also significantly related to interviewer efficiency (see Table 2). Those working at Call Center 2 tended to have higher hours per completed interview than did those at Call Center 1.

Interviewer Effectiveness

The final measure of interest is interviewer effectiveness, operationalized as the standardized (z score) ratio of number of refusals to number of refusals + completed interviews obtained during an interviewer's first 100 hours on the job. Scores on this variable ranged from -3.5 to 3.1 , with a median value of -0.2 . Unlike the findings related to persistence and interviewer efficiency, the findings for interviewer effectiveness are less robust (see Table 2). Previous experience was clearly related to interviewer effectiveness. Interviewers who have interviewed previously tend to have fewer refusals per refusals + completed interview than do those for whom interviewing is a brand new experience. None of the other variables examined—demographics, skills, attitude, or work environment—appear to be related in a significant way to interviewer effectiveness.

CONCLUSION

This study of the persistence and performance of newly recruited telephone interviewers suggests that interviewers who remain on the job for 100 hours

TABLE 3
Efficiency by Confidence and Optimism

Optimism	Confidence			
	Low		High	
	Mean z Score	n	Mean z Score	n
Low	.04	54	.28	118
High	-.77	29	-.27	43

NOTE: Cells contain mean z scores for hours per complete. Significance based on F test of means ($p < .037$). Low optimism = 3 to 9 on optimism scale; high optimism = 10 to 15 on optimism scale. Low confidence = not at all, not very, or somewhat confident; high confidence = very or extremely confident.

and those who perform well vary considerably in terms of their backgrounds, experience levels, relevant skills, attitudes, and workplace environments from those who drop out during the first few weeks after training and from those who persist but tend to be poorer performers. Interestingly, however, no single factor or set of factors appears to identify either those who persist or those who are effective and efficient in executing their interviewing duties.

Workplace environment (work site, shift, and project assignment) appears to be the strongest set of factors influencing whether interviewers stay or go during the first 100 hours on the job. Considering the effect of work site, while it is difficult to say which particular qualities of these sites were at play, it should be noted that Call Center 2 was intentionally built in a location thought to maximize the likelihood of recruiting and keeping interviewers. It was identified, in part, on the basis of its proximity to a perceived desirable labor pool, the unemployment rate of the community, and the accessibility of the facility (e.g., it was on a public transportation line, was a short drive for most workers, etc.). The findings presented here appear to confirm the wisdom of where the facility was built; however, it is important to recognize that the differences in results specific to the two sites may stem from a set of factors not accounted for in the current analysis. Site also had an impact on interviewers' efficiency. Again, although it is difficult to determine exactly which attributes of these facilities are at play in these results, we can speculate that being the newer of the two facilities, Call Center 2 had a much less experienced supervisory team during the time these studies were conducted. In contrast, Call Center 1 had a well-established and very experienced supervisory team. Call Center 1 may have had a staff better able to

offer interviewers experience-based advice, mentoring, and supervision during their first weeks on the job.

The finding that interviewers who work primarily night and weekend shifts tend to turn over more often than do day-shift interviewers is not surprising. These shifts tend to be harder to fill for almost every industry. Those who work day shifts are much more likely to be full-time or near full-time employees. It is likely that full-time employees are more motivated to stay in their current jobs as this would tend to be their primary source of income. Those working part-time, however, may be less dependent on interviewing for a revenue stream and hence less invested in the job.

Anecdotal evidence from some of the interviewers themselves (particularly those who ultimately worked on both studies) supported the notion that the longitudinal study (Survey 1) was easier in many respects than Survey 2 and hence more enjoyable for the interviewers. The longitudinal study involved recontacting individuals who had participated in at least one wave of the study previously. These sample members tended to be, therefore, more invested in the study and easier to persuade to participate than were those in Survey 2, who were being contacted for the first time. As with any job, people tend to stay in jobs they enjoy. The findings indicate that interviewers who began their jobs on the easier study tended to stick with the job longer than those who began on the more "difficult" study.

Conversely, individual characteristics, such as gender, race, and enrollment status, along with attitude, appear to be more important in determining interviewer efficiency, whereas experience is the primary factor influencing interviewer effectiveness. Sample members who receive a call from an unknown female interviewer are probably less inclined to view the interaction as potentially threatening than if they were to receive a call from an unknown male interviewer. Hence, women may find it easier to gain cooperation from sample members than do men. Race may have a similar effect, particularly when the race of the interviewer and race of the sample member are the same. Some research has shown that the race, ethnicity, and gender of an interviewer can affect a respondent's level of cooperation (Moorman et al. 1999).

Likewise, student interviewers may have had more success on these studies than those who were not enrolled in college because the students shared similar experiences with the sample members, particularly sample members in Study 2 who were all college students. Being students themselves, the interviewers may have found it easier to attempt to elicit cooperation and to administer the survey. Enrollment status was also positively linked to interviewer persistence. This may be because many of the college students who apply to be telephone interviewers take the job because they need the money

and hence are more willing to stay on the job even if they do not particularly like the tasks they have to perform.

Attitude and experience also came into play in driving performance among better interviewers. The considerable literature on self-efficacy (i.e., the belief in one's ability to organize and implement courses of action required to successfully manage likely scenarios) finds that those with high self-efficacy tend to approach difficult tasks as challenges to be mastered, recover quickly from failure, and approach difficult situations with assurance that they can exercise some degree of control over them (Bandura 1986). In short, we would expect interviewers with a strong sense of self-efficacy to be more persistent and perform better in their jobs. The results here bear this out, but with a caveat. Confidence alone was not sufficient to improve interviewer performance, but confidence combined with a healthy respect for the possible "realities" that may occur during some telephone interviews improved performances.

Telephone interviewing is a very difficult task. It requires that interviewers project a confident attitude but also that they be prepared for the difficulties that they will encounter from their very first hour on the telephone. Those who previously held interviewing, telemarketing, or other related jobs are more likely to have had experiences that would better prepare them for the survey interviewing task and thus allow them to better handle reluctant respondents than those for whom interviewing is a new experience. Groves and Couper (1998) suggested that experienced interviewers tend to possess two requisite skills of successful interviewers: the ability to "tailor" their approach to the changes in the interviewing situation at hand and the ability to "maintain interaction," thereby increasing the odds of success. In contrast, inexperienced interviewers tend to create a disproportionate number of "soft refusals" (i.e., cases easily converted by a more experienced interviewer) by pressing the sample member for a decision prematurely.

Because the sample of interviewers examined here was not representative of all interviewers working in survey research, the generalizability of these results to other groups of interviewers working under different conditions may be limited. Some of the findings do, however, appear to have implications for the recruitment and training of new interviewers more broadly:

- There is no single factor or set of factors that produce efficient, effective, long-term interviewers; rather, it is a complex mix of factors that involves both personal characteristics of the interviewers and characteristics of the workplace that tend to affect different aspects of the interviewing job.
- Interviewer training should be designed to help interviewers become more confident in the tasks they are to perform but should also provide them with as realistic as possible a set of expectations for what they will encounter once on the telephones.

- Starting interviewers on easier, less difficult studies may help them gain confidence earlier and hence to persist longer in their jobs.
- Interviewing and mentoring experience of the supervisory staff is likely a critical element for helping to develop a productive interviewing staff.

The study also points out some areas for further exploration. In particular, better understanding is needed of the amalgam of workplace factors that affect interviewer persistence and performance. Although several broad control variables were analyzed in this study, more detailed delineation and examination of the particular workplace factors at play are required. Likewise, although the analysis suggests the importance of several individual characteristics in determining interviewer performance, there are other aspects of performance and factors related to performance that need to be considered in future studies, such as the quality of the work completed (item nonresponse levels, keying errors, and questionnaire administration errors), the performance of more difficult tasks (such as refusal conversion), and the examination of other possible influences such as direct assessment of interviewing skills (probing, responding to questions from sample members, obtaining cooperation from sample members) and voice quality (speed, tone, pronunciation, etc.).

The effects of interviewer characteristics on data quality, in particular, require systematic examination. Efforts in this area should focus on the interviewer-monitoring process as a potentially fruitful source for such information. When assessments are conducted systematically across the interviewer pool, information from scoring sheets or monitoring databases used to assess an interviewer's tone, pace of speech, questionnaire administration, keying errors, and other elements of interviewer behavior linked to data quality can help to further our understanding in this area. Studies also need to include other survey designs (such as random-digit-dial telephone studies in which contacting and interviewing are even more difficult than cold calling from a list sample) and training protocols (shorter, less rigorous training).

In summary, successful interviewing is a complex task, and multiple factors are related to longevity and success in such a job. This study provides some insights into these factors, but there is much we have yet to understand about what makes for a long-term, successful telephone interviewer.

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