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Examining Interviewer Behavior in Handling Difficult Cases

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Developing Our Hypothesis...

- Growing literature how well various interviewer characteristics, attitudes, skills predict contacting and gaining cooperation
- Less literature addressing variables predictive of measurement error related to the interviewer
 - don't often have way to assess measurement error
 - good survey administration

Motivation for Study

- Objective is to increase our understanding of what predicts 'good survey administration' ...
 - Context?
 - Perceived difficulty of the case – More deviation with more difficult cases?
 - Interviewer attributes?
 - Asked many of the items from the SHARE Germany work from ITSEW 2011 (Blom and Korbmacher, 2011)

Study Design

- National Health and Aging Trends Study (NHATS)
 - Longitudinal design
 - Sample of Medicare beneficiaries (65+)
 - CAPI interview – about 2 hours average length
 - All interviews recorded, sample coded
- Three sources of data:
 - CARICode data – metric of quality of survey administration
 - Electronic Record of Contacts (EROC) data – context variable
 - Interviewer questionnaire – German SHARE questionnaire

CARICode Data – Quality of Survey Administration

- CARICode Result Code- Aggregates performance across all coded questions within an interview
 - Validation Risk – highest priority code (*excluded*)
 - Inaudible – less than half of the recordings in the interview were audible (*excluded*)
 - Question Administration issue - At least 20% of audible recordings were coded as ‘changed meaning’
 - Probing issue – Interviewer did not probe in at least 20% of audible recordings in which the respondent initially gave an invalid answer
 - Professionalism concern – biased feedback/commentary, taking cell phone calls, etc

Skill Issues Identified:

Skill issue	Count	%
All cases sampled for coding	1,670	(100)
Administration Issue	66	4.0
Probing Issue	72	4.3
Professionalism concern	159	9.5
Multiple Issues (admin + other)	362	21.7
Total cases with any issue	659	39.4%

Context Variable - Difficulty Groups

- Used Electronic Record of Contacts (EROCs) to categorize
- Difficult Case (n=517)
 - Ever refused (refusal conversion case)
 - 2 + broken appointments
 - 75th percentile in number contact attempts
- Not difficult – the remainder (n=1,153)

Results: Any Type of Skill Issue by Difficulty of Case

Overall Interviewer Skill Issue	Difficult Case (N=517)	Not Difficult (N=1,153)
Yes	36.7	40.7
No	63.3	59.3
	100%	100%

Results: Skill Issue by Case Difficulty, at Question Level

Percent of Q recordings with an interviewer error in reading the question

Question	Difficult Case (N=517)	Not Difficult (N=1,153)	Chi-square
Health Conditions (HC6)	2.9	4.2	1.56
Overnight stay (HC7)	12.9	14.2	1.25
Senior housing (HT4)	9.1	11.5	2.06
Who does laundry (HA1)	22.1	27.5	5.47*
Shower, bath (SC7)	5.8	8.8	4.29*
Well-Being (WB)	1.0	2.6	4.64*
Economic wellness (EW7)	20.1	23.2	1.99

* ($p < 0.05$)

Results: Do Respondents Differ by Case Difficulty?

- Looked at respondent data
 - Compared respondent attributes by “difficulty”
 - Compared respondent behavior by “difficulty”, per core question

Results: Respondent Attributes by Case Difficulty

Rating	Self Rated Health		Self Rated Memory	
	Difficult Case (N=1,153)	Not Difficult (N=517)	Difficult Case (N=1,109)	Not Difficult (N=483)
Excellent	12.3	12.0	11.7	12.2
Very Good	25.8	27.3	31.2	31.9
Good	31.7	32.1	34.9	36.0
Fair	21.7	22.2	18.2	17.2
Poor	8.5	6.4	4.1	2.7
	100%	100%	100%	100%

Results: R Issue by Case Difficulty, at Question Level

Percent of Q recordings where R initial response not a valid answer

Question	Difficult Case (N=517)	Not Difficult (N=1,153)	Chi-square
Health Conditions (HC6)	5.4	5.5	~0.00
Overnight stay (HC7)	2.3	2.9	~0.00
Senior housing (HT4)	4.5	4.7	~0.00
Who does laundry (HA1)	3.9	4.9	~0.00
Shower, bath (SC7)	3.7	3.3	~0.00
Well-Being (WB)	30.0	35.0	4.05*
Economic wellness (EW7)	3.3	2.1	2.18

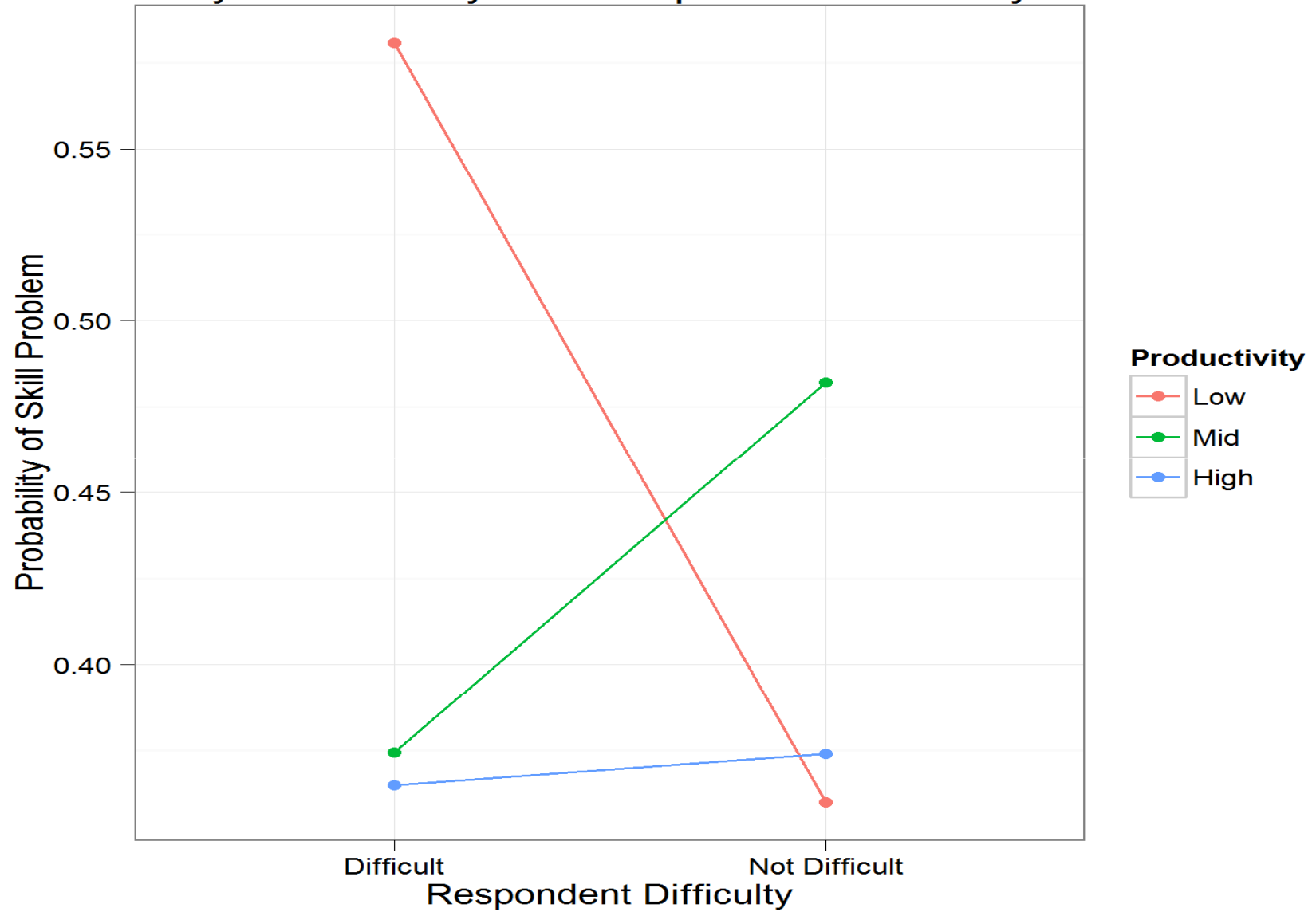
Why Would 'Not Difficult' Cases Result in More Skill Issues?

- Sample for coding at the interviewer level may influence results
 - Variability in interviewer skills/behaviors may reflect differences in interviewer productivity
 - Difficult cases not randomly assigned
- Repeat analysis
 - Controlling for differences in interviewer productivity,
 - Accounting for interviewer variability in model

Creating Interviewer Productivity Groups

- Divided each interviewer into one of three groups
 - Low productivity: # of completed cases in 25th percentile
 - Average productivity: # of completed cases in 26th -74th percentile
 - High productivity: # of completed cases in 75th percentile
- Each coded case had interviewer productivity flag

Probability of Skill Problem by Productivity and Respondent Difficulty



What do these Data Suggest?

- Interviewer performance/behavior may be related to the perceived difficulty of a case
- Direction of relationship seems related to productivity
 - Seems independent of respondent attributes or behaviors
 - Relationship strengthens if account for the “learning curve”
- Can interviewer attributes further explain (SHARE Germany, Blom and Korbmacher, 2011)?

Nonresponse issue...

- Not all interviewers completed questionnaire
 - 241 interviewers across the 1,670 coded cases
 - 143 eligible to complete the questionnaire,
 - 98 actually completed it
- Almost all of the low productivity group missing data

Interviewer Background questionnaire - Preliminary

- *General interviewer attitudes* - Reasons for being an interviewer
 - When pay is more important, less likely to deviate
- *Interviewer's own behavior* - Interviewer strategies for handling difficult respondents/situations
 - No apparent relationship
- *Interviewers' expectations* – Item nonresponse
- Self-perceived communication skills
 - Lower self assessment, more likely to deviate

Next Steps in our Understanding

- What does this say about training/hiring practices?
- How can we use these type of data to better understand who/why deviations occur?
- Are CARICode data adequate 'proxies' for data quality?

Questions or suggestions:

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A special thank you to **Drew Kistler** for his help processing the contact record data.

Wording of Individual Questions

HC6:

Is there another serious disease or illness that I have not asked about that a doctor has told you that you have?

HC7:

Have you had an overnight hospital stay within the last 12 months, that is since (DATE)?

Wording of Individual Questions

HT4:

I have recorded that you live in a (structure type). Is your home part of a retirement community or a senior housing community?

Wording of Individual Questions

HA1:

(Showcard)

Let's start with your laundry. By laundry we mean cleaning your clothing, sheets and towels.

Which answer best describes how your laundry got done in the last month? Did you always do this by yourself, always do it together with someone else, did someone else always do it for you, or did it vary?

Wording of Individual Questions

SC7:

In the last month, how did you usually clean yourself up? By taking a shower, bathing in a tub, or washing up some other way?

IF NEEDED: Do not include whirlpool baths you take for therapy.

Wording of Individual Questions

WB:

Sometimes people feel older or younger than their age. During the last month, what age did you feel most of the time.

Wording of Individual Questions

EW:

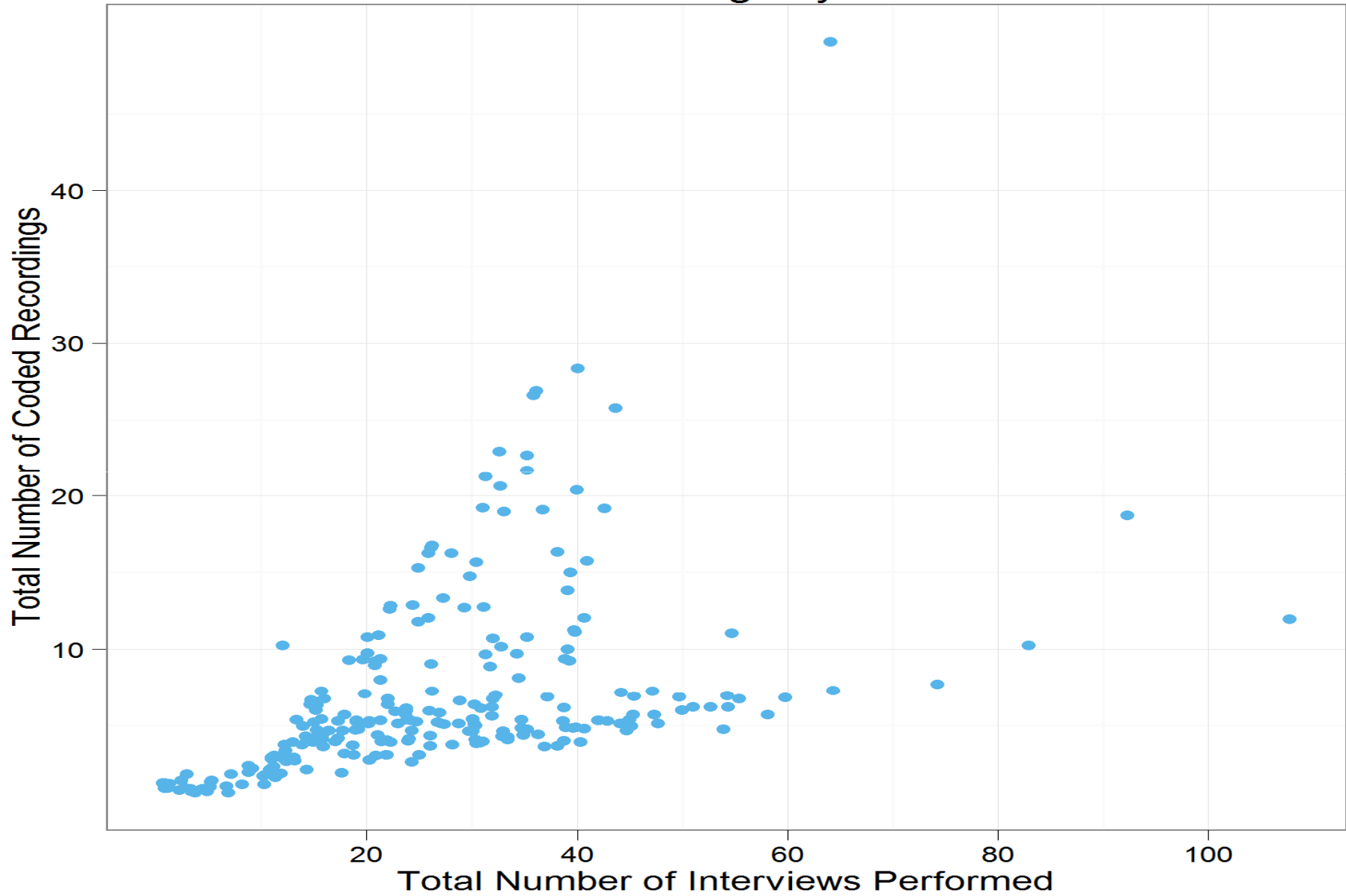
Family members often help each other out financially. The next questions are about last year, ending December 31.

Last year, did you receive any financial help or financial gifts from (children or other) relatives, either regularly – like every month – or just every so often as needed?

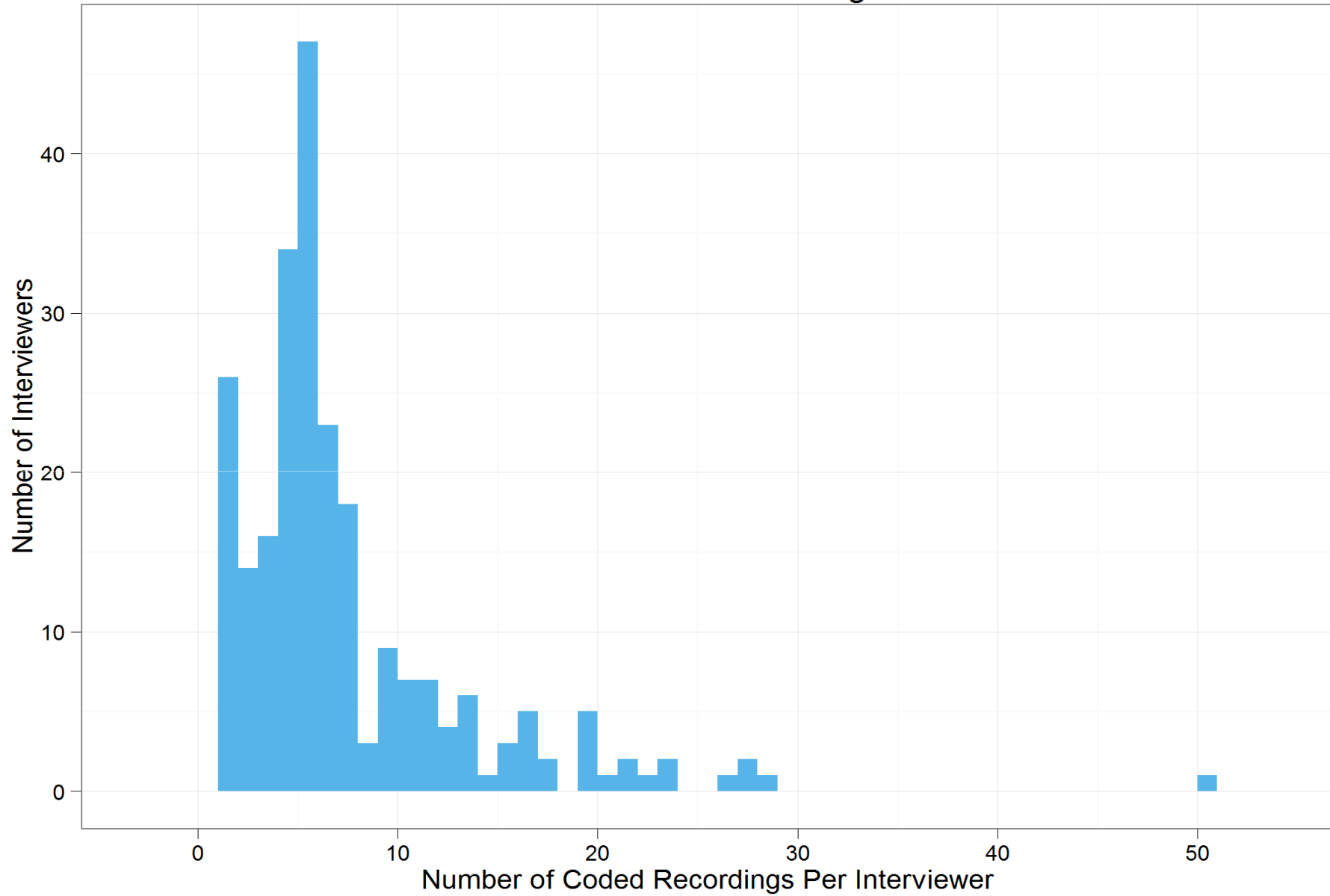
Results: R Issue by Case Difficulty, at Question Level

	Percent of Q recordings with an interviewer error in reading the question, by workload		
Individual Question	Difficult Case (n=517)	Not Difficult (n=1,153)	Chi-square
Overnight stay (HC7)			
Small	31.0	13.0	6.46*
Average	10.5	14.8	3.19
Large	10.9	13.7	.85
Who does laundry (HA1)			
Small	48.7	31.0	3.99*
Average	18.9	29.3	12.66*
Large	22.4	23.7	.13
Economic wellness (EW7)			
Small	46.2	27.6	4.60*
Average	17.6	22.2	2.57
Large	18.6	23.5	1.80

Number of Coded Recordings by Number of Interviews



Distribution of Coded CARI Recordings Per Interviewer



Results: % Skill Issues by Difficulty, by first or later case

Case type	N	Difficult Case	N	Not Difficult	Chi-square
First case only	61	54.1	179	41.3**	4.92**
All other cases	456	34.4	974	40.6*	3.00*

Results: Skill Issue by Difficulty—Controlling for Productivity

Percentage of Difficult or Not, with an Interviewer Skill Issue, by Productivity category of Interviewer

Productivity category	N	Difficult Case	N	Not Difficult	Chi-square
Low	(39)	59.0%	(116)	37.9%	5.27*
Average	(295)	34.6%	(620)	44.8%	8.67*
High	(183)	35.5%	(417)	35.3%	.00