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Survey Participation in SHARE

The Contribution of Paradata to Panel Cooperation

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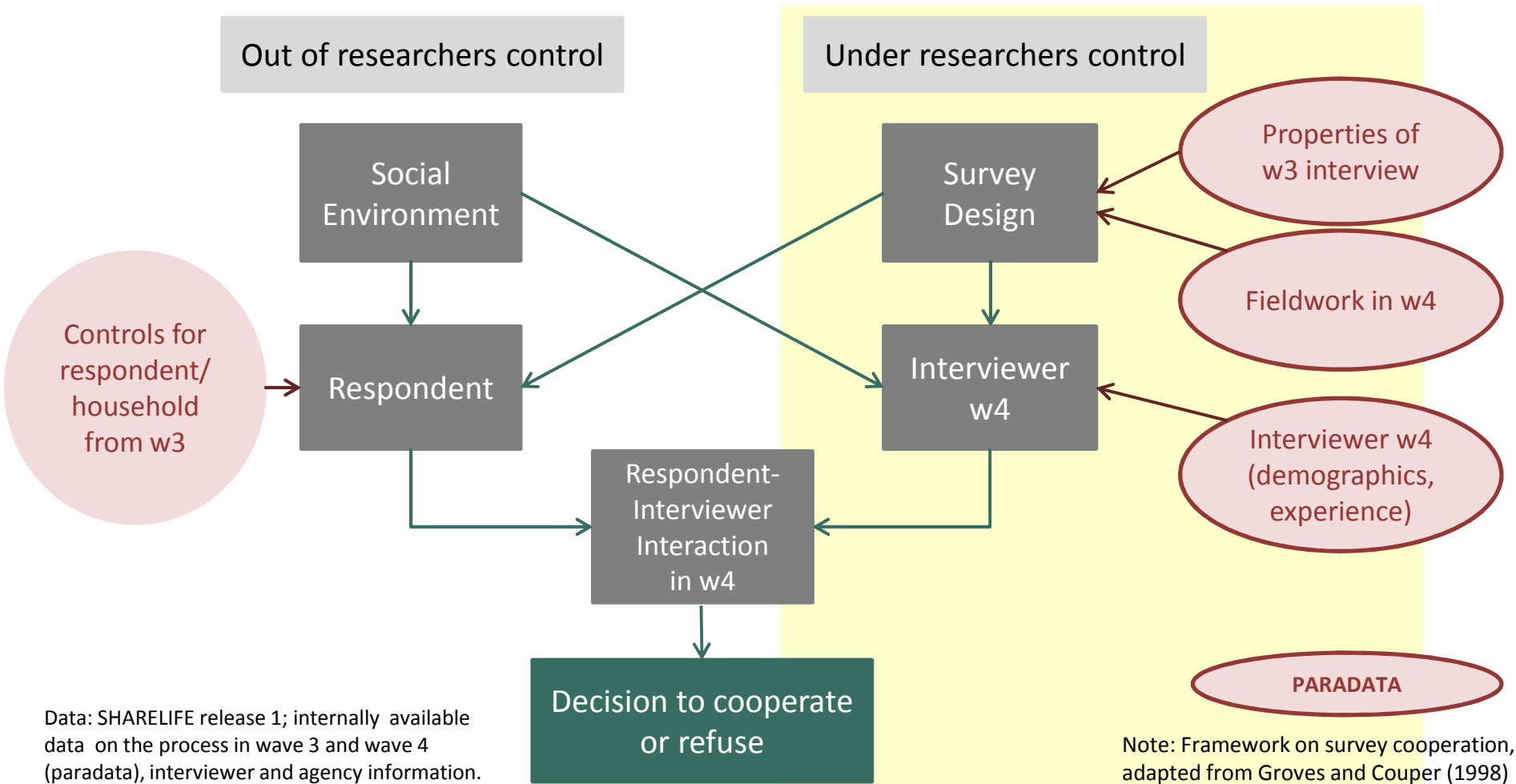
Motivation

- ▶ Overall: Panel data analysis depends highly on a consistent panel sample (low attrition rate)
 - ▶ High sample size
 - ▶ Less room for bias
- ▶ Main question: How to keep respondents in the panel?
- ▶ Research questions:
 - ▶ How high is attrition in SHARE wave 4?
 - ▶ What is the contribution of paradata in explaining cooperation?
 - ▶ What is the influence of interviewer and survey organization?



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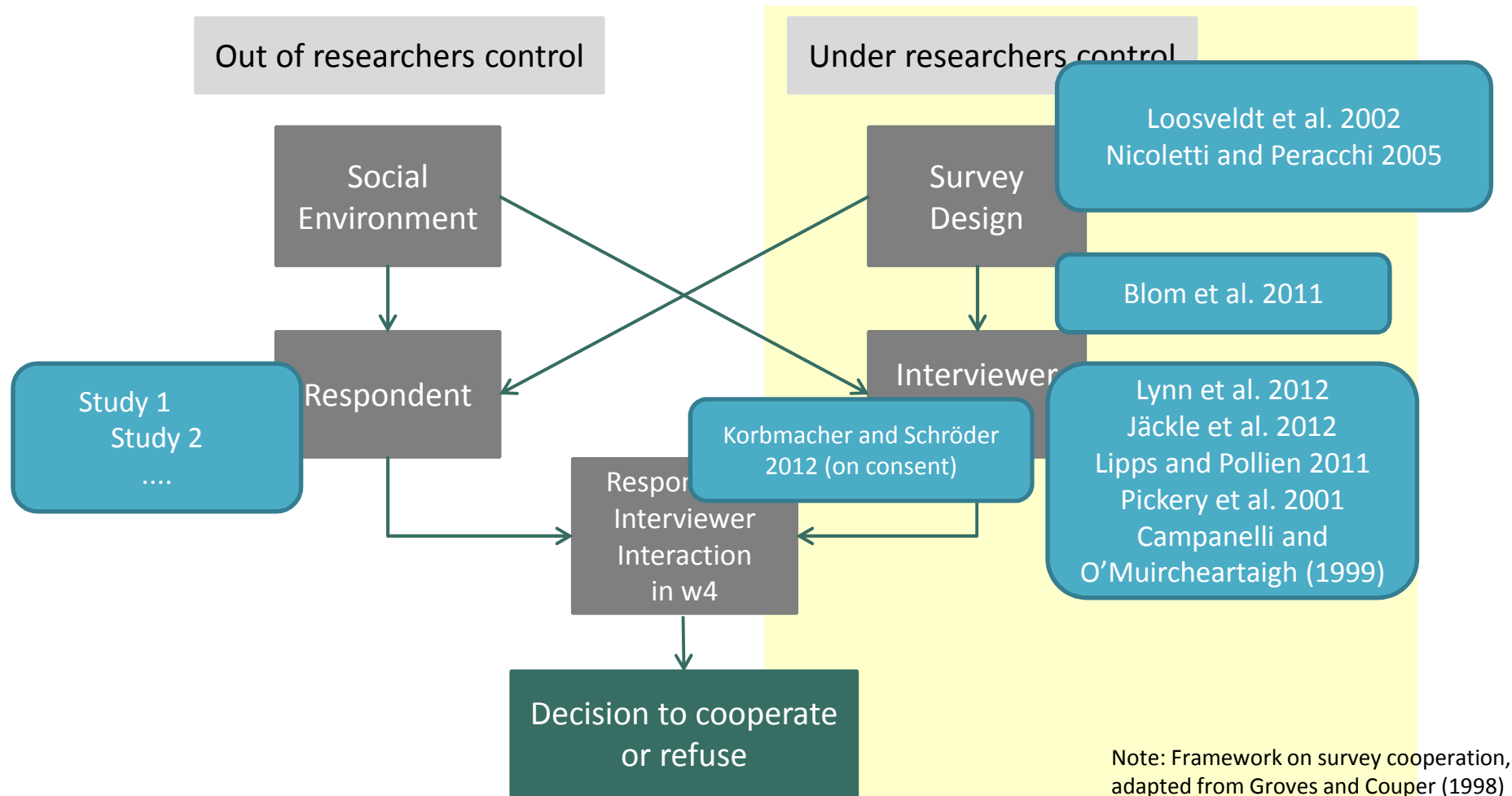
Theory ...and data





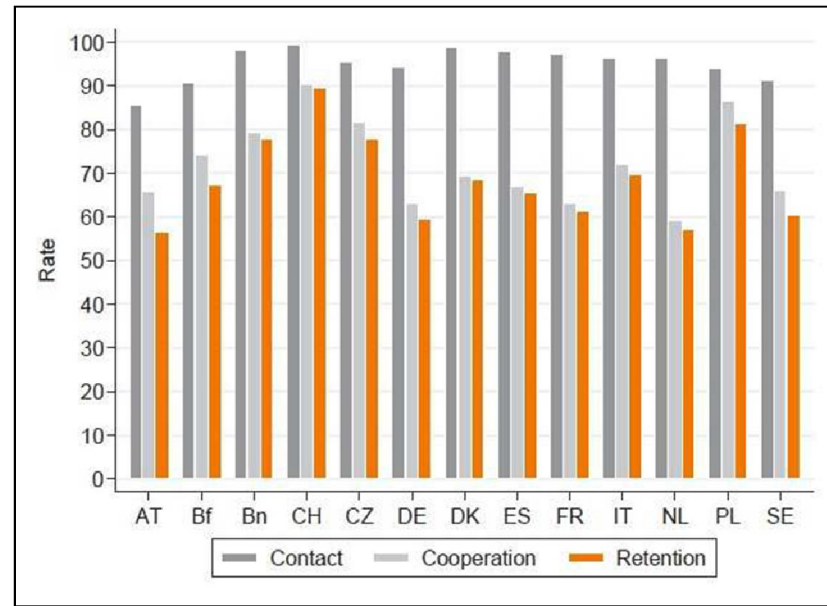
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Theory ...and previous research





Cooperation in Panel sample W4



Source: Kneip 2013, p.147

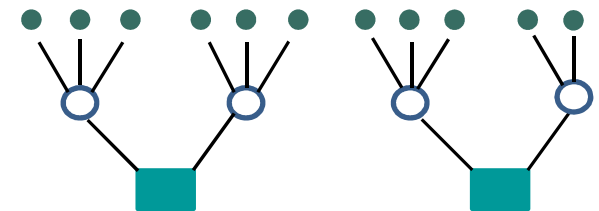
- ▶ Contact and cooperation usually analysed as sequential events (e.g. Nicoletti and Peracchi 2005, Blom et al. 2011).
- ▶ Noncontact is very limited, we focus on cooperation conditional on contact (as Jäckle et al. 2012) – the moment where the interviewer-respondent interaction starts



Empirical strategy

- ▶ Outcome: cooperation in wave 4
conditional on participation in w3 and contact in w4
- ▶ Stepwise 3-level, nested, logistic model

1. Respondent (i) ●
2. Interviewer (j) ○
3. Agency/country (k) ■



- ▶ Random-intercept model:

v_{0k} random effect at agency level

u_{0jk} random effect at interviewer level

e_{0ijk} random effect at respondent level

$$y = I[y^* > 0]$$

$$y^*_{ijk} = \beta_{0ijk} + \beta_1 X_{ijk} + \beta_2 Z_{jk} + \beta_3 S_k$$

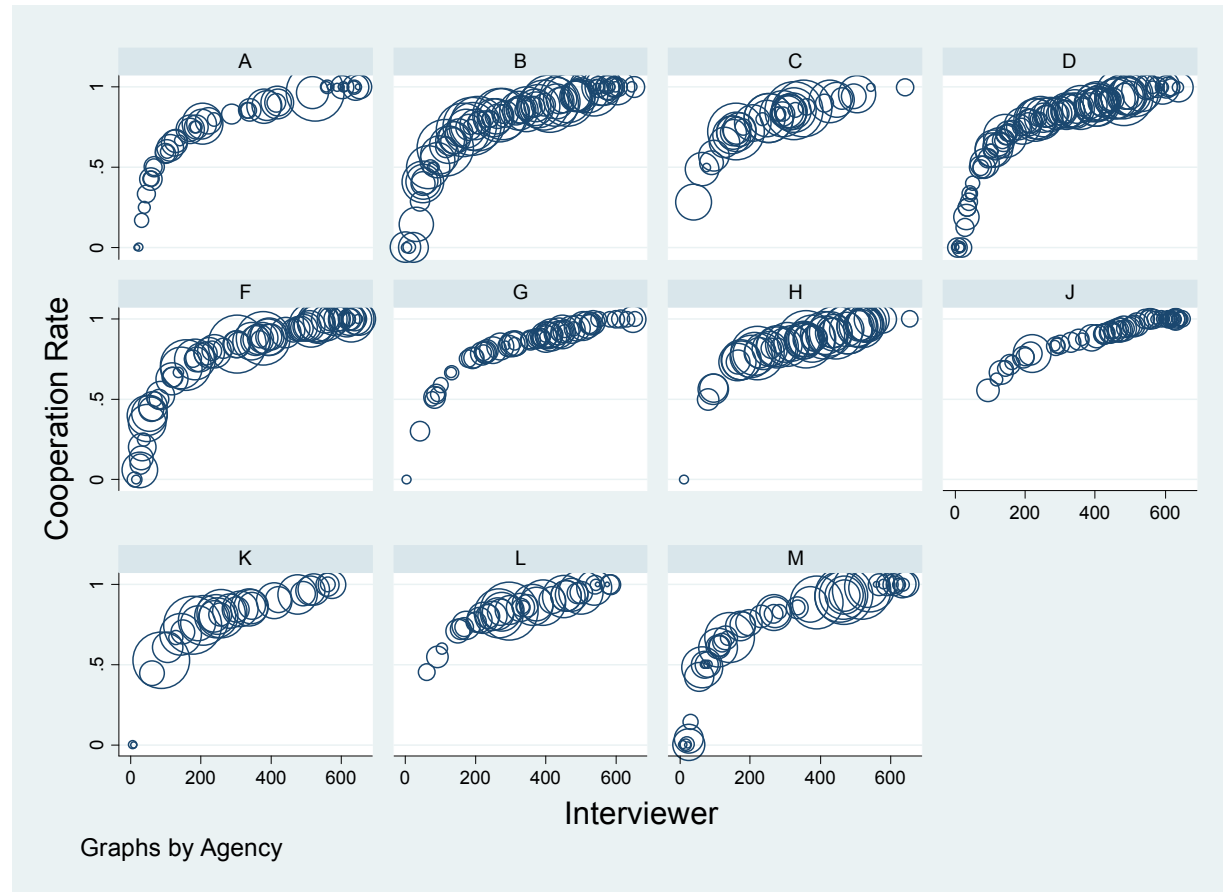
$$\beta_{0ijk} = \beta_0 + v_{0k} + u_{0jk} + e_{0ijk}$$

y is cooperation in W4, y^* is a latent continuous variable representing the propensity to cooperate



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Interviewer effects



Note: Interviewers ordered by cooperation rate. Size of bubble indicates number of cases an interviewer worked on.



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Cooperation – Respondent

Table 1: Probability of cooperation

	Intercept- Only
Intercept	0.176 ^{***} (0.0447)
<i>Respondent</i>	
Participated w1,w3	
Participated all waves	
<i>Random-intercept variance</i>	
σ^2 Interviewer	1.423 ^{***} (0.127)
σ^2 Agency	0.115 ^{***} (0.065)
ICC_Iwer	0.3185
ICC_Agency	0.0237
Log-likelihood	-7006.1
LR-Test against m0	
BIC	14041.3
N	16631

Note: Standard errors in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Interviewer N=667, Agency N=11.

On respondent-level controlled for gender, age, partner interviewed, single, education (ns), income (ns, quartile3rd), working, urbanicity (ns), living in single house



Cooperation – Paradata w3

Table 1: Probability of cooperation

	Intercept- Only	Respondent	R-Paradata
<i>Respondent</i>		X	X
<i>Paradata from wave 3</i>			
Item nonresponse			-0.545 ^{***} (0.0891)
Interview duration			0.361 ^{***} (0.0767)
Willingness to answer			0.448 ^{***} (0.0907)
Not asked for clarification			0.272 ^{***} (0.0679)
ICC_Iwer	0.3185	0.3196	0.3225
ICC_Agency	0.0237	0.0253	0.0243
Log-likelihood	-7006.1	-6846.5	-6780.0
LR-Test against m0		319.17 ^{***}	452.14 ^{***}
BIC	14041.3	13867.9	13783.5
N	16631	16631	16631

Note: Standard errors in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Interviewer N=667, Agency N=11.



Cooperation – Fieldwork w4

Table 1: Probability of cooperation

	Intercept- Only	Respondent	R-Paradata	Interviewer
<i>Respondent</i>		x	x	x
<i>Paradata from wave 3</i>			x	x
<i>Fieldwork wave 4</i>				
Times HH was contacted			0.0253 (0.0188)	0.0381* (0.0194)
<i>Interviewer wave 4 (iwer)</i>				
Age				-0.004 (0.005)
Female				0.126 (0.112)
Experience with SHARE				0.780*** (0.120)
Times a HH was contacted (iwer-specific mean)				-0.151* (0.0743)
ICC_Iwer	0.3185	0.3196	0.3225	0.2933
ICC_Agency	0.0237	0.0253	0.0243	0.0263
Log-likelihood	-7006.1	-6846.5	-6780.0	-6754.7
LR-Test against m0		319.17***	452.14***	502.73***
BIC	14041.3	13867.9	13783.5	13771.8
N	16631	16631	16631	16631

Note: Standard errors in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Interviewer N=667, Agency N=11.



Cooperation – Agency wave 4

Table 1: Probability of cooperation

	Intercept- Only	Respondent	R-Paradata	Interviewer	Agency
<i>Respondent</i>		x	x	x	x
<i>Paradata from wave 3</i>			x	x	x
<i>Interviewer wave 4 (iwer)</i>				x	x
<i>Agency wave 4</i>					
Project priority by agency (not by interviewer)					0.163 (0.150)
Daily contact with iwer					0.738*** (0.182)
ICC_Iwer	0.3185	0.3196	0.3225	0.2933	0.2785
ICC_Agency	0.0237	0.0253	0.0243	0.0263	0.0040
Log-likelihood	-7006.1	-6846.5	-6780.0	-6754.7	-6748.1
LR-Test against m0		319.17***	452.14***	502.73***	515.97***
BIC	14041.3	13867.9	13783.5	13771.8	13778.0
N	16631	16631	16631	16631	16631

Note: Standard errors in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Interviewer N=667, Agency N=11.



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Cooperation – Full model

Table 1: Probability of cooperation

	Intercept- Only	Respondent	R-Paradata	Interviewer	Agency
Intercept	0.176 ^{***} (0.0447)	0.176 ^{***} (0.0449)	0.185 ^{***} (0.0448)	0.109 [*] (0.0464)	0.112 [*] (0.0465)
<i>Respondent</i>		x	x	x	x
<i>Paradata from wave 3</i>			x	x	x
<i>Interviewer wave 4 (iwer)</i>				x	x
<i>Agency wave 4</i>					x
<i>Random-intercept variance</i>					
σ^2 Interviewer	1.423 ^{***} (0.127)	1.423 ^{***} (0.128)	1.449 ^{***} (0.130)	1.243 ^{***} (0.115)	1.252 ^{**} (0.116)
σ^2 Agency	0.115 ^{***} (0.065)	0.122 ^{***} (0.069)	0.118 ^{***} (0.067)	0.122 [*] (0.069)	0.018 [*] (0.024)
ICC_Iwer	0.3185	0.3196	0.3225	0.2933	0.2785
ICC_Agency	0.0237	0.0253	0.0243	0.0263	0.0040
Log-likelihood	-7006.1	-6846.5	-6780.0	-6754.7	-6748.1
LR-Test against m0		319.17 ^{***}	452.14 ^{***}	502.73 ^{***}	515.97 ^{***}
BIC	14041.3	13867.9	13783.5	13771.8	13778.0
N	16631	16631	16631	16631	16631

Note: Standard errors in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Interviewer N=667, Agency N=11.



Conclusions & Discussion

► Results:

- Previous interview experience matters!
- SHARE-experienced interviewers achieve higher cooperation rates
- Communication between agency and interviewer important
- SHARE cross-country standardization successful (low agency ICC)

► Further steps/ Where to go?

- How to capture the fieldwork moment at the cooperation attempt?
Indicator for interviewers success vs. failure at time of cooperation attempt (interviewer-specific cooperation rate)
- Investigate experience of interviewer further
- Benefit of same interviewer over waves (e.g. Behr et al. 2005, Lynn et al. 2011)