



# Concurrent, Sequential or Web-Only?

Evidence from a mixed-mode recruitment experiment in FReDA

Pablo Christmann, Tobias Gummer, Tanja Kunz, Anne-Sophie Oehrlein & Lisa Schmid



@FredaPanel [www.freda-panel.de](http://www.freda-panel.de)

Closer conference, 20.1.2022



# CONTENT

1. FReDA – Briefly explained
2. Design of recruitment experiment
3. Response, panel consent, share of paper
4. Non-response
5. Outcomes for substantive answers
6. Sample composition
7. Discussion

# 1.

FReDA –  
Briefly explained

# FAMILY RESEARCH AND DEMOGRAPHIC ANALYSIS

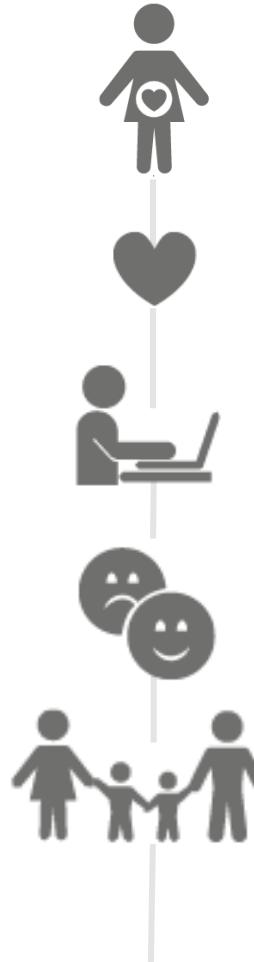
- » **FReDA-GGS:** Probability based survey of 18- to 49-year-olds (20,000 – 22,000 panelists)
- » **FReDA-pairfam:** Continuation of pairfam study (additional 4,500-5,000 panelists) 
- » **Multi-actor-design:** 7,000-9,000 additional partner interviews per wave
- » **Bi-annual repeated surveys**
- » **Cross-nationally comparable through the GGS** 
- » **Core themes:** family, partnerships, fertility, parenthood
- » **Interdisciplinary access:** Sociology, Social psychology, Demography, Economics, Political science
- » **Partner:**



Leibniz Institute  
for the Social Sciences



# FReDA CONTENT



## Family planning and fertility

Wish to have children, pregnancies, infertility, contraception

## Couples' relationships und partnerships

Biographical information on previous partnerships and marriages, relationship duration, cohabitation, relationship satisfaction, separations and divorces

## Employment situation, income, wealth

For anchor and partner, ISCO, working time arrangements, household net income

## Division of housework and childcare

Division of work among partners, satisfaction, members of the household, support services

## Parenthood and parent-child relationships

Information about children, relationship to children, support services

# FReDA CONTENT



Relationships between generations



Health, well-being and personality



Opinions and values



.... Open modules from the research community

# 2.

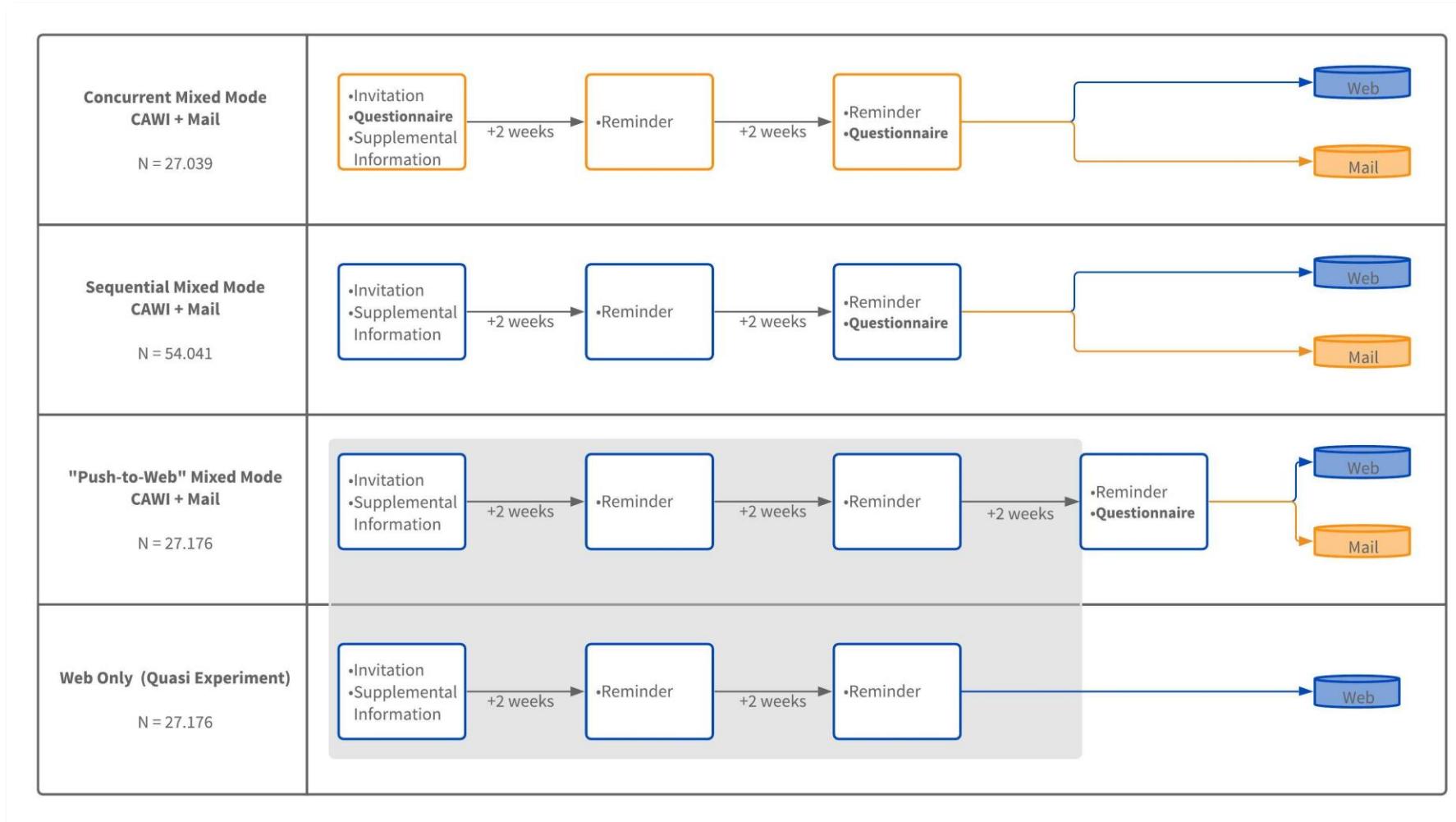
Design of recruitment  
experiment

# PUSH-TO-WEB

Survey modes and the search for the optimal mode choice strategy

- » Originally, the recruitment survey was supposed to be CAPI survey and then Covid-19 happened... (see Gummer et al. 2020)
- » Instead: self-administered mixed-mode survey (see Wolf et al. 2021)
  - » Approx. 10 min long, dedicated recruitment survey
  - » 5€ unconditional prepaid incentive sent with the invitation letter
  - » CAWI (online questionnaire, optimized for mobile devices) und PAPI (paper-based questionnaire sent by mail)
  - » Probability based register sample with N=108,256 addresses
  - » FW-Dates: 7.4.2021 – 29.06.2021, field institute: infas Institut für angewandte Sozialwissenschaft GmbH
  - » AAPOR response rate 6: 38,3%
- » Implementation of a randomized experiment on mode choice strategy

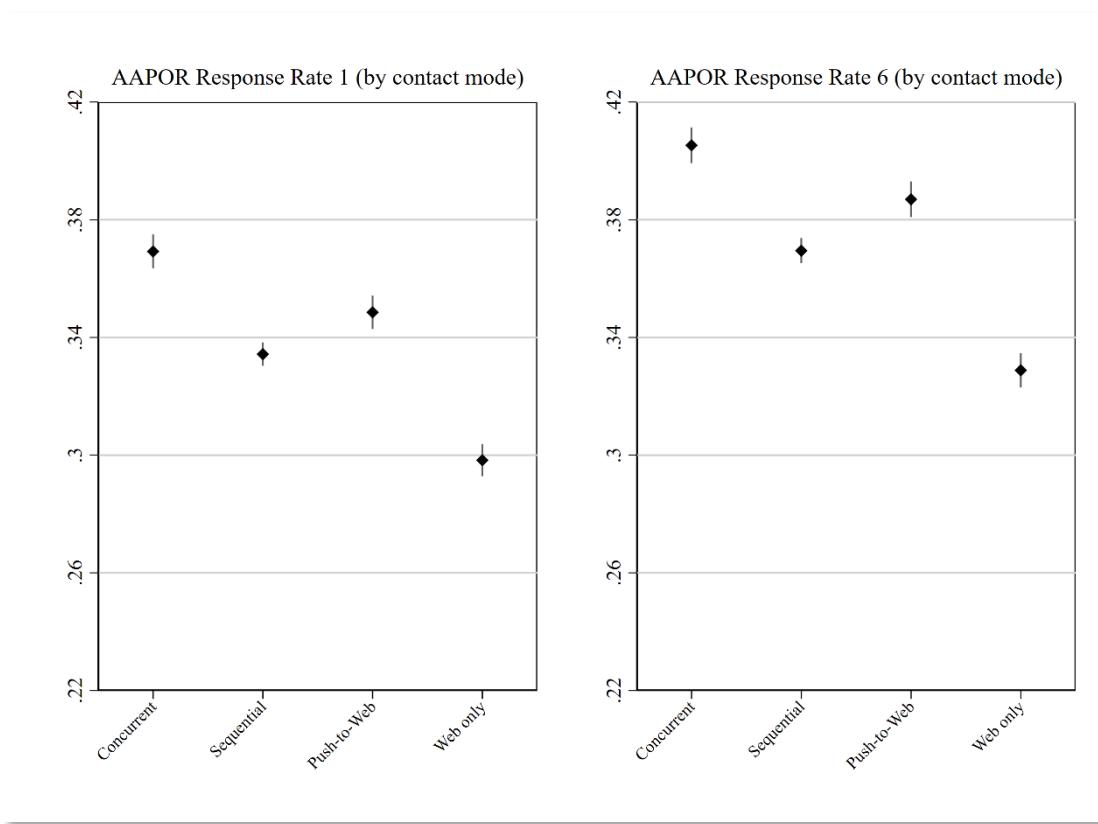
# RESEARCH DESIGN



3.

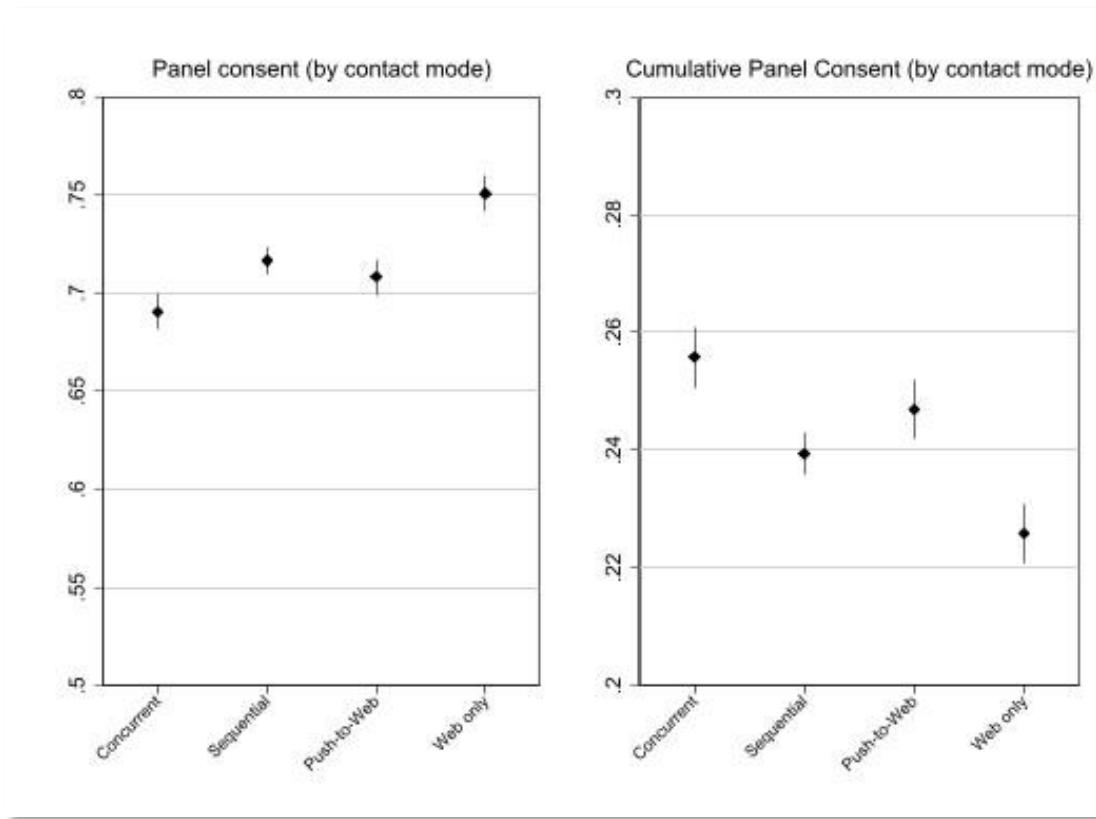
Response, panel  
consent, share of paper

# RESPONSE RATE



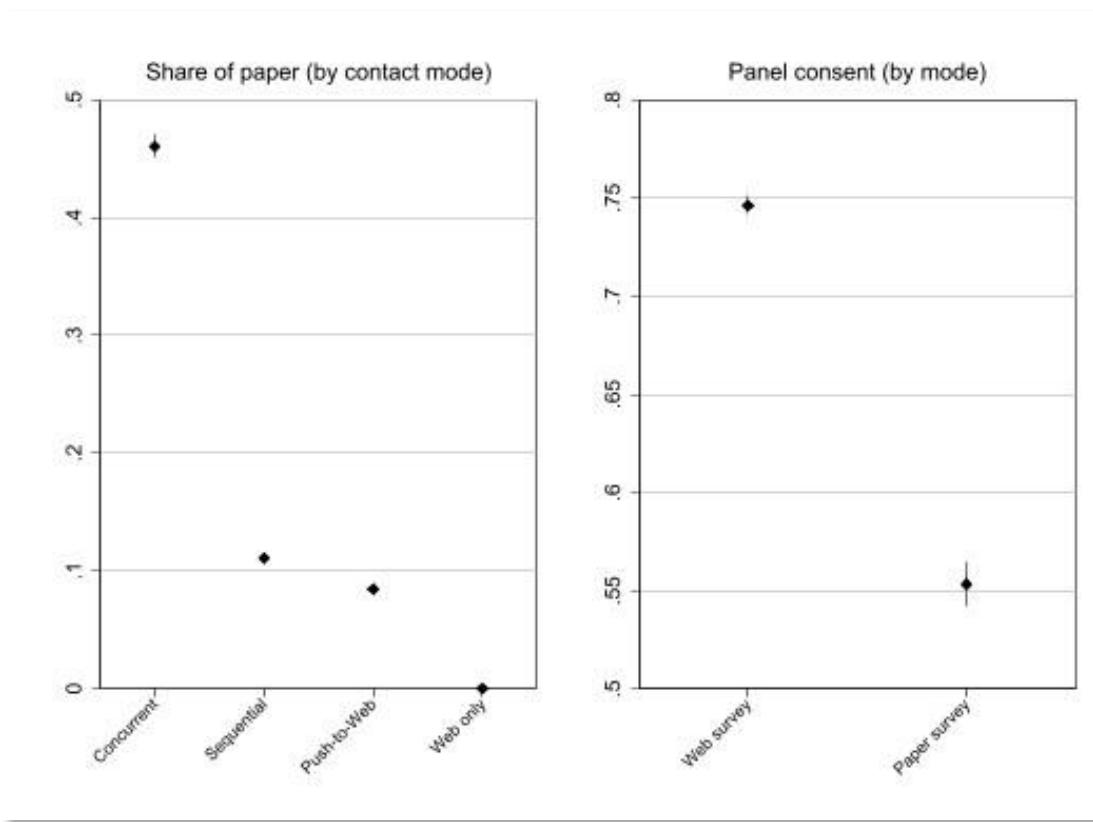
- » Concurrent contact design yields better results than the sequential design
- » Effect of additional reminder in the “strong” push-to-web group is neglectable
- » Single mode web survey still yields a response rate  $\geq 30\%$

# PANEL CONSENT



- » ... but consent rate is highest in single mode web survey and lowest in concurrent mode
- » ... still concurrent design outperforms other designs when considering the cumulative panel consent rate (AAPOR RR6\*CR)
- » differences between mode choices are reduced

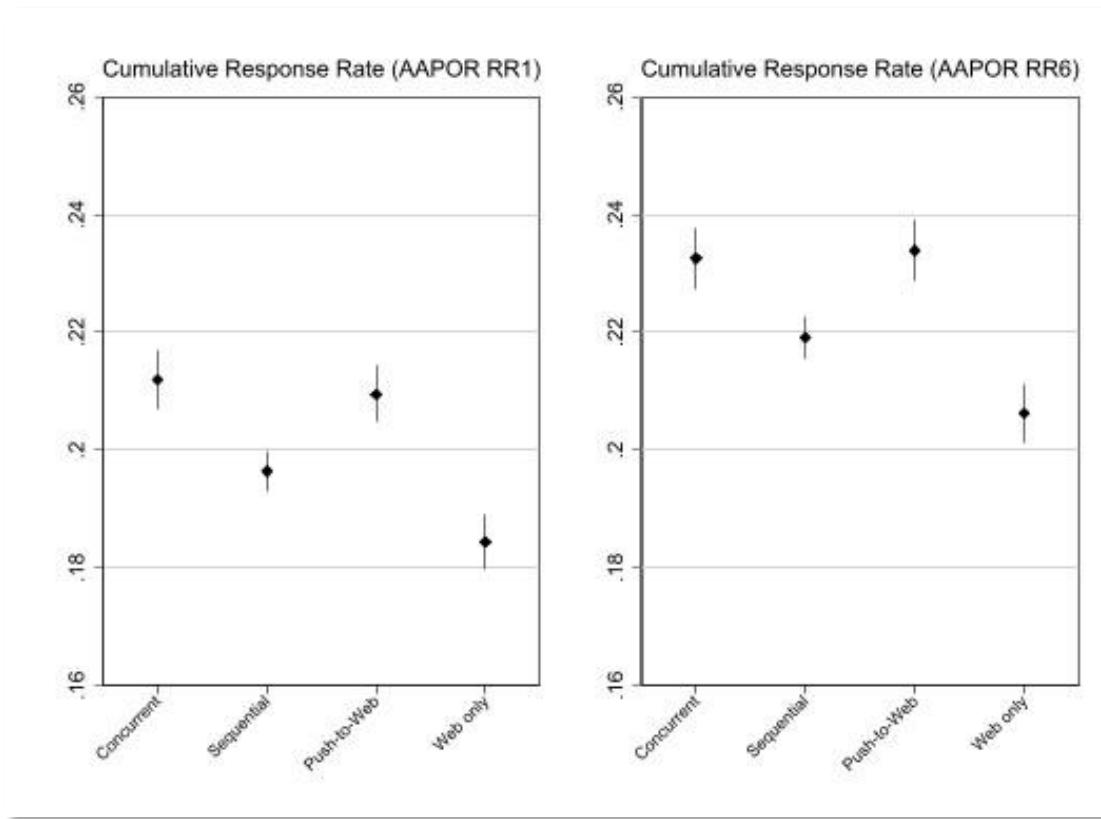
# SHARE OF PAPER



- » share of paper is much higher in the concurrent contact design
- » consent rate much higher in web interviews
- » the majority of web-respondents took part in the survey with mobile devices:
 

51.7%	via smartphone,
8.6%	via tablet,
24.6%	via notebook,
14.9%	via desktop computer

# CUMULATIVE RESPONSE RATE (AFTER WAVE 2)

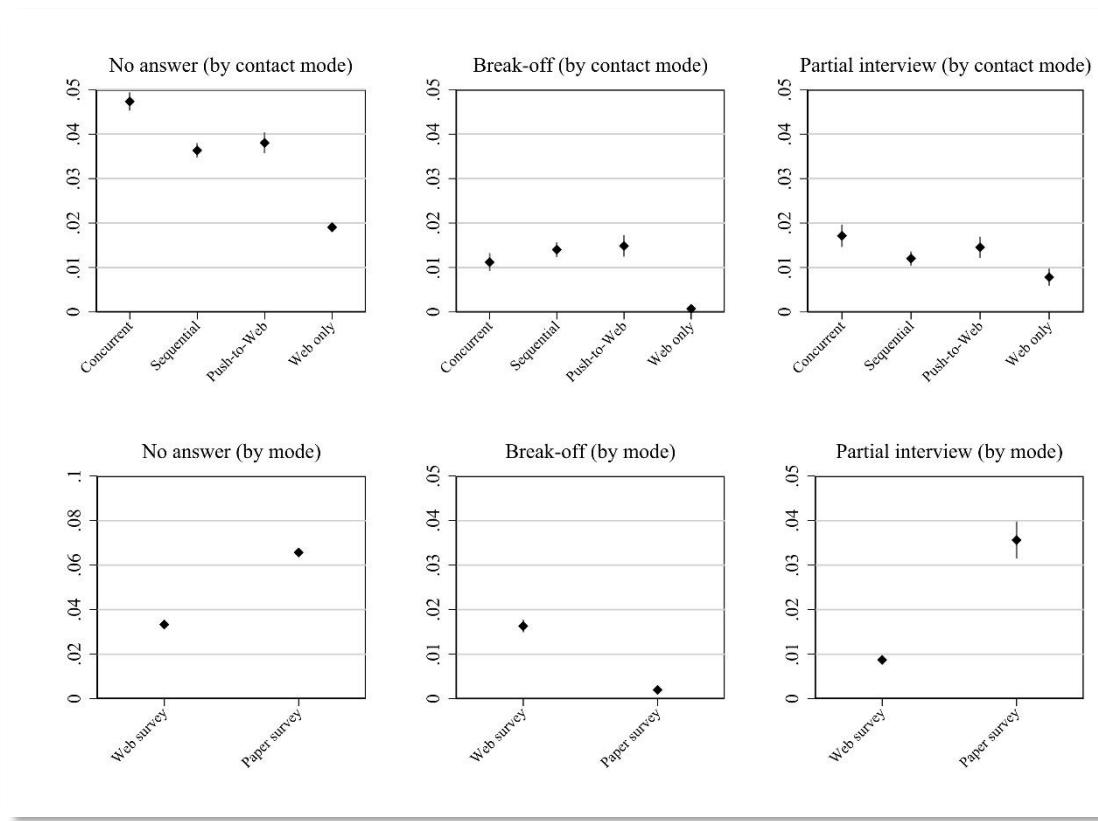


- » differences between mode choices are even further reduced when considering the cumulative response rates after the first reinterview

4.

Non-response

# UNIT & ITEM NON-RESPONSE

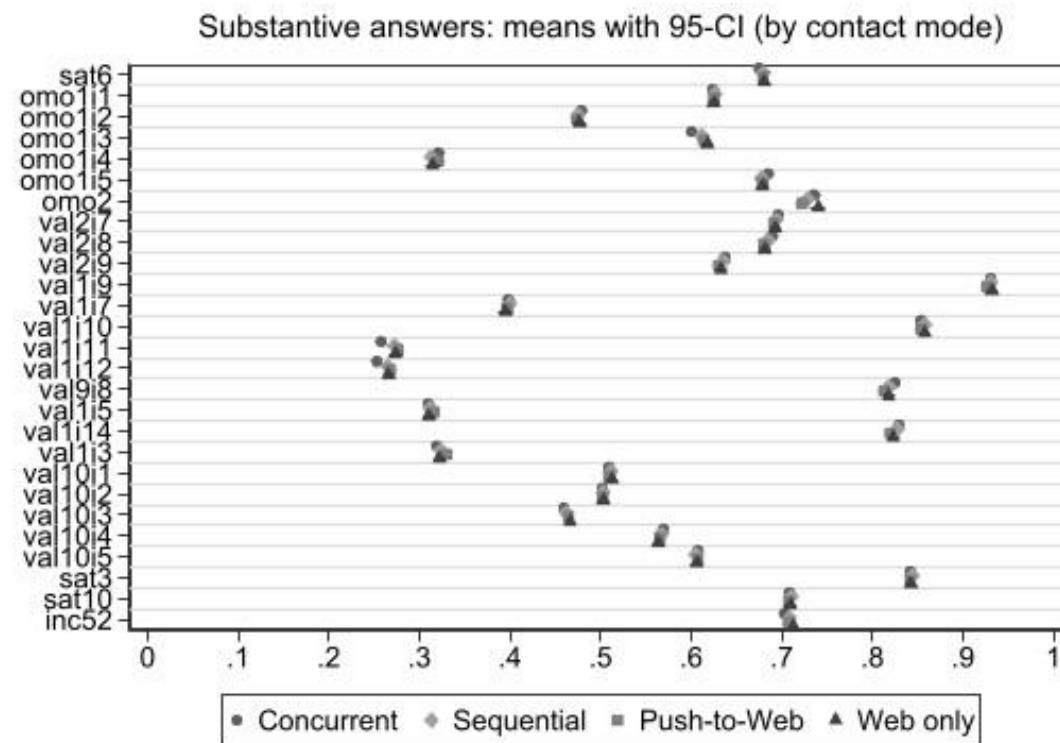


- » Share of NA well within tolerable limits for all mode choices
- » Break-off rate slightly lower in concurrent mode than in sequential modes
- » Partial interview rate slightly higher in concurrent mode than in sequential mode
- » ...this is because people don't send back a paper survey they did not really answer

# 5.

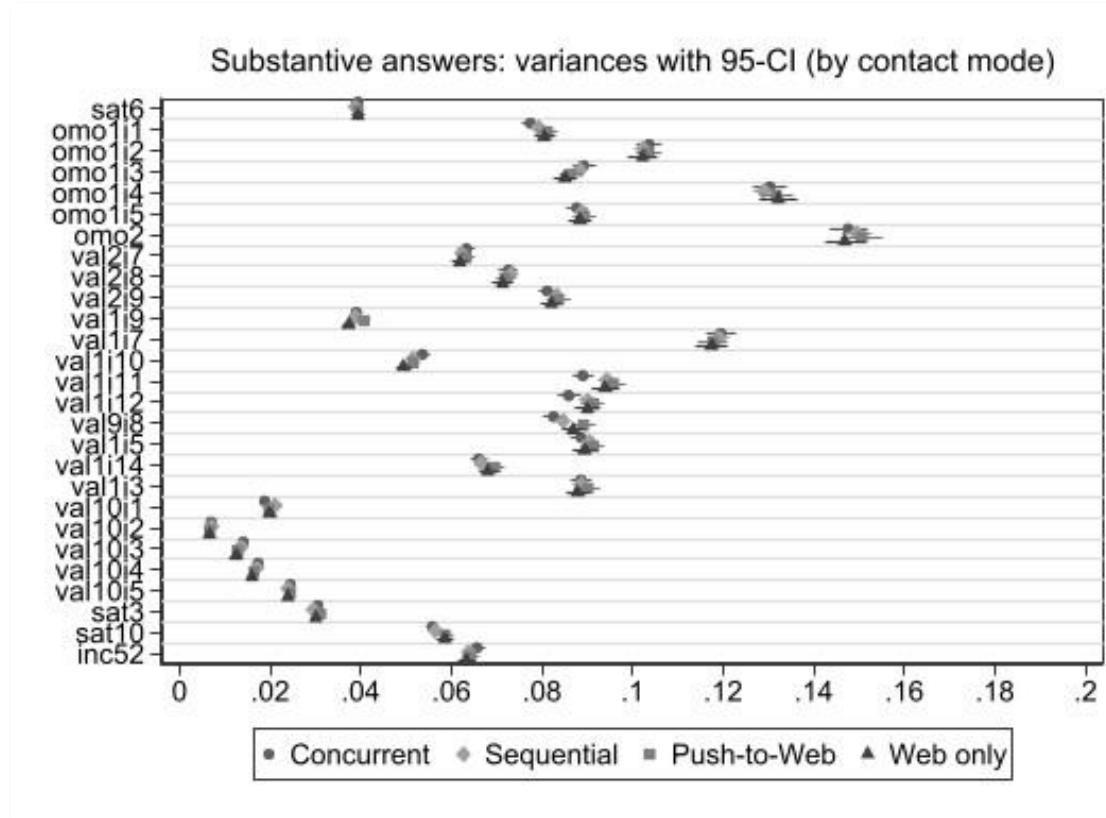
Outcomes for  
substantive answers

# OUTCOMES FOR SUBSTANTIVE ANSWERS



- » All ordinal rating scales of the questionnaire (N=27), variables have been rescaled to values between 0-1
- » No matter the mode choice strategy, we get the same answers on average

# OUTCOMES FOR SUBSTANTIVE ANSWERS



- » All ordinal rating scales of the questionnaire (N=27), variables have been rescaled to values between 0-1
- » No matter the mode choice strategy, we get similar variances

# 6.

## Sample composition

# AGE

<b>Age</b>	<b>Population</b>	<b>Concurrent</b>	<b>Sequential</b>	<b>Push-to-Web</b>	<b>Web Only</b>
18-20	4.9	4.6 (-0,3)	5.1 (+0,2)	4.9 (+0,0)	5.0 (+0,1)
20-25	14.0	14.3 (+0,3)	13.6 (-0,4)	13.9 (-0,1)	14.2 (+0,2)
25-30	15.0	14.6 (-0,4)	14.7 (-0,3)	15.0 (+0,0)	15.1 (+0,0)
30-35	17.8	18.2 (+0,4)	17.8 (+0,0)	17.7 (-0,1)	17.7 (-0,1)
35-40	16.2	17.9 (+1,7)	17.6 (+1,4)	18.2 (+2,0)	18.3 (+2,1)
40-45	15.8	15.9 (+0,1)	16.2 (+0,4)	16.2 (+0,4)	16.0 (+0,2)
45-50	16.2	14.5 (-1,7)	15.1 (-1,1)	14.2 (-2,0)	13.7 (-2,5)

- Population reference based on data from the German Mikrozensus 2020
- The web mode underrepresents the 45-50yrs a little bit stronger than the other modes

# SEX

<b>Sex</b>	<b>Population</b>	<b>Concurrent</b>	<b>Sequential</b>	<b>Push-to-Web</b>	<b>Web Only</b>
Female	49,0	54,5 (+5,5)	55,2 (+6,2)	54,3 (+5,2)	53,96 (+4,9)
Male	51,0	45,2 (-5,8)	44,5 (-6,5)	45,4 (-5,5)	45,77 (-5,2)
Non-binary	0,0	0,3 (+0,3)	0,3 (+0,3)	0,3 (+0,3)	0,28 (+0,3)

# EDUCATION

<b>Education</b>	<b>Population</b>	<b>Concurrent</b>	<b>Sequential</b>	<b>Push-to-Web</b>	<b>Web Only</b>
ISCED 1-2	17,46	5,36 (-12,1)	5,17 (-12,3)	5,41 (-12,1)	5,08 (-12,4)
ISCED 3-4	53,61	44,72 (-8,9)	45,42 (-8,2)	44,83 (-8,8)	45,74 (-7,9)
ISCED 5-8	28,73	41,99 (+13,3)	40,08 (+11,4)	41,22 (+12,5)	43,12 (+14,4)
Unknown or in education	0,20	7,92 (+7,7)	9,33 (+9,1)	8,54 (+8,3)	6,07 (+5,9)

- The web mode overrepresents the highly educated a little bit more than the other modes

# MARITAL STATUS

Marital Status	Population	Concurrent	Sequential	Push-to-Web	Web Only
Single	52,9	51,1 (-1,8)	51,6 (-1,3)	51,2 (-1,7)	51,45 (-1,5)
Married / life-partnership	40,67	43,32 (+2,7)	42,67 (+2,0)	43,22 (+2,6)	43,02 (+2,4)
Separated	1,9	1,5 (-0,4)	1,5 (-0,5)	1,5 (-0,4)	1,46 (-0,5)
Divorced / dissolution of life-partnership	4,18	3,78 (-0,4)	3,99 (-0,2)	3,86 (-0,3)	3,89 (-0,3)
Widowed	0,3	0,3 ( $\pm$ 0,0)	0,3 (-0,1)	0,2 (-0,1)	0,18 (-0,1)

# HOUSEHOLD SIZE

Household Size	Population	Concurrent	Sequential	Push-to-Web	Web Only
One-person household	20,8	14,5 (-6,4)	14,4 (-6,4)	15,1 (-5,8)	15,32 (-5,5)
Two-person households	23,2	26,8 (+3,6)	26,3 (+3,1)	25,6 (+2,4)	25,7 (+2,5)
Three-person households	22,3	23,2 (+0,9)	23,5 (+1,2)	24,1 (+1,8)	23,72 (+1,4)
Four-person households	23,8	25,3 (+1,4)	25,7 (+1,9)	25,0 (+1,2)	24,77 (+0,9)
Households with 5 and more persons	9,8	10,3 (+0,4)	10,1 (+0,3)	10,3 (+0,5)	10,53 (+0,7)

# EMPLOYMENT STATUS

Employment Status	Population	Concurrent	Sequential	Push-to-Web	Web Only
In employment	79,4	76,7 (-2,7)	76,6 (-2,9)	76,2 (-3,2)	76,3 (-3,1)
Out of employment	16,9	20,9 (+4,1)	20,9 (+4,0)	21,2 (+4,3)	21,3 (+4,4)
Unemployed	3,7	2,4 (-1,3)	2,5 (-1,1)	2,6 (-1,1)	2,4 (-1,3)

# HOUSEHOLD INCOME

Household Income	Population	Concurrent	Sequential	Push-to-Web	Web Only
< 1,000 EUR	7.38	7,1 (-0,3)	7,1 (-0,3)	7,3 (+0,0)	6,81 (-0,6)
1,000-2,000 EUR	16.65	14,3 (-2,3)	14,3 (-2,3)	14,3 (-2,4)	13,71 (-2,9)
2,000-3,000 EUR	21.74	19,6 (-2,2)	19,1 (-2,7)	20,6 (-1,2)	20,37 (-1,4)
3,000-4,000 EUR	20.38	21,7 (+1,3)	21,9 (+1,5)	21,3 (+0,9)	21,50 (+1,1)
4,000-4,500 EUR	8.54	10,4 (+1,8)	10,5 (+2,0)	11,2 (+2,6)	11,52 (+3,0)
> 4,500 EUR	25.31	27,0 (+1,6)	27,1 (+1,8)	25,4 (+0,1)	26,09 (+0,8)

- The web mode overrepresents the high-income group a little bit more than the other modes
- ... and underrepresents the low inc. group a bit more

# NATIONALITY

Nationality	Population	Concurrent	Sequential	Push-to-Web	Web Only
Germany	81,1	92,3 (+11,2)	92,9 (+11,8)	92,4 (+11,3)	92,73 (+11,7)
Turkey	2,4	0,6 (-1,8)	0,8 (-1,7)	0,6 (-1,8)	0,60 (-1,8)
Syria	1,5	0,6 (-0,9)	0,4 (-1,1)	0,7 (-0,8)	0,60 (-0,9)
Poland	1,3	0,4 (-0,9)	0,6 (-0,7)	0,5 (-0,8)	0,49 (-0,8)
Italy	1,1	0,5 (-0,7)	0,6 (-0,6)	0,4 (-0,8)	0,38 (-0,8)
Rumania	1,0	0,4 (-0,6)	0,3 (-0,7)	0,3 (-0,8)	0,23 (-0,8)
Croatia	0,7	0,3 (-0,5)	0,3 (-0,5)	0,3 (-0,4)	0,25 (-0,5)
Other Country	10,8	4,9 (-5,9)	4,1 (-6,6)	4,8 (-6,0)	4,72 (-6,0)

# URBANITY

Inhabitants at place of residence	Population	Concurrent	Sequential	Push-to-Web	Web Only
Under 2,000	4,7	4,5 (-0,2)	4,4 (-0,3)	4,2 (-0,5)	4,2 (-0,5)
2,000-5,000	7,7	9,2 (+1,5)	9,6 (+1,9)	9,5 (+1,8)	9,6 (+1,9)
5,000-20,000	24,8	26,3 (+1,5)	26,6 (+1,8)	25,6 (+0,8)	25,7 (+0,8)
20,000-50,000	17,8	15,7 (-2,2)	15,7 (-2,1)	15,6 (-2,3)	15,4 (-2,5)
50,000- 100,000	8,8	7,7 (-1,1)	7,3 (-1,5)	7,8 (-1,0)	7,8 (-1,0)
100,000- 500,000	16,6	16,9 (+0,4)	16,9 (+0,3)	17,2 (+0,7)	17,3 (+0,7)
Over 500,000	19,6	19,7 (+0,2)	19,6 (+0,0)	20,1 (+0,6)	20,0 (+0,5)

# 7.

## Discussion

# DISCUSSION

- » Concurrent design performed best with respect to RR, but advantage is reduced when considering the panel consent rate or the cumulative response rate as well
- » It is feasible to build a register-based panel in self-administered-modes
- » Single mode web-surveys look like a viable alternative for our age group (<50yrs)
  - » more research is necessary: for this we will continue our web-only experiment until the end of the third wave (W1b)
- » The second FReDA wave (W1a) has been successfully completed
  - » About 22.000 completed re-interviews (RR6=85%), tailored contact design, questionnaire length ≈ 20-25min
  - » 7,131 completed partner interviews (consent=53%, RR6=79%), length ≈ 20min



# Thank you!

Dr. Pablo Christmann

Project Coordinator FReDA  
GESIS - Leibniz Institute for the Social Sciences  
P.O.Box 122155  
68072 Mannheim  
Phone: +49(621)-1246-411  
Mail: pablo.christmann@gesis.org

[www.freda-panel.de](http://www.freda-panel.de)

# LITERATURE

- » Gummer, Tobias, Claudia Schmiedeberg, Martin Bujard, Pablo Christmann, Karsten Hank, Tanja Kunz, Detlev Lück, and Franz J. Neyer. 2020. "The impact of Covid-19 on fieldwork efforts and planning in pairfam and FReDA-GGS." *Survey Research Methods* 14 (2): 223-227. doi: <http://dx.doi.org/10.18148/srm/2020.v14i2.7740>.
- » Schneider, Norbert F., Martin Bujard, Christof Wolf, Tobias Gummer, Karsten Hank, and Franz J. Neyer. 2021. "Family Research and Demographic Analysis (FReDA): Evolution, framework, objectives, and design of "The German family- demographic panel study"." *Comparative Population Studies* 46 149-186. doi: <http://dx.doi.org/10.12765/CPoS-2021-06>.
- » Wolf, Christof, Pablo Christmann, Tobias Gummer, Christian Schnaudt, and Sascha Verhoeven. 2021. "Conducting General Social Surveys as Self-Administered Mixed-Mode Surveys." *Public Opinion Quarterly* 85 (2): 623-648. doi: <http://dx.doi.org/10.1093/poq/nfab039>.