

Interviewers' influence on bias in reported income

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Manfred Antoni
Basha Vicari
Daniel Bela

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- Interaction with an interviewer influences the response behavior
- Answers to sensitive questions often affected by social desirability bias
- Income questions have highest sensitivity of all items with non-response rates ranging from 20–27% (Krumpal 2013)
- Growing literature on item non-response with income questions (e.g. Essig and Winter 2009; Riphahn and Serfling 2005)

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- 1) What is the extent of income misreporting?
- 2) How do respondent characteristics influence the report behavior?
- 3) How do interviewer characteristics influence the report behavior?

- Rational choice model:
 - Interview as "social situation" (Esser 1991)
 - Answers aim to maximize positive feelings of social approval and to avoid shame, embarrassment and dismissive reactions (Stocké and Hunkler 2007)
 - Reporting of very high or very low income unpleasant (Riphahn and Serfling 2005)
 - Bias increases with the perceived social distance between respondent and interviewer (Diekmann 2008)

- Most influential attributes of interviewers in CATI:
 - *Gender* (Huddy et al. 1997; Kane and Macaulay 1993; Klein and Kühhirt 2010)
 - *Job experience* (Biemer and Lyberg 2003; Essig and Winter 2009)

- Hypotheses on influence of respondent characteristics:

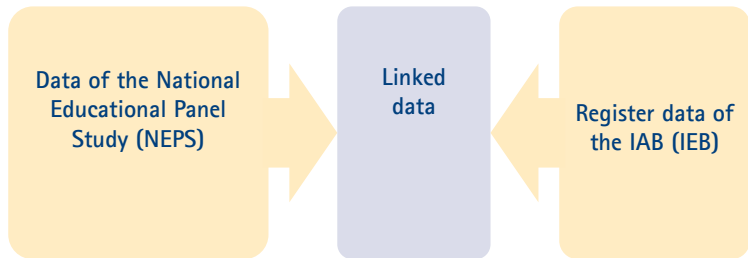
H1: Female respondents report more accurately.

H2: Highly educated respondents report more accurately.

- Hypotheses on influence of interviewer characteristics:

H3: More experienced interviewers produce more accurate reports.

H4: Similarity between interviewer and respondent reduces misreporting.



- NEPS Starting Cohort 6 (adults), waves 2 and 3, birth cohorts 1944-1986 (doi:10.5157/NEPS:SC6:3.0.1)
- N: 11.649
- CATI with focus on educational history, also covering social background, (un)employment biography etc.
- Information on net and gross income for current episodes
- Paradata on interviewers and interview situation

- Daily longitudinal data on:
 - employment (since 1975)
 - registered unemployment (since 1975)
 - participation in labor market programs (since 2000)
 - registered job search activities (since 2000)
- Covering over 80% of the German labor force
- Mandatory social security notifications by employers on their dependent employees \Rightarrow highly reliable information on gross income
- Consistent person identifier \Rightarrow once a survey respondent is identified in the administrative data, complete employment history is available.
- Misreporting or recall error by observational unit impossible

- Record linkage of survey and administrative data using name, address and birth date of respondents.
- Combination of deterministic and probabilistic linkage methods.
- Informed consent to linkage from about 90% of respondents.
- So far: only preliminary data with low linkage success rate.
- Final data set will have a higher number of observations.

Sample restrictions

- Only episodes of dependent, full-time employment
- Only employment episodes that are ongoing at or have ended shortly before the time of the interview
- No spells with implausible or censored income

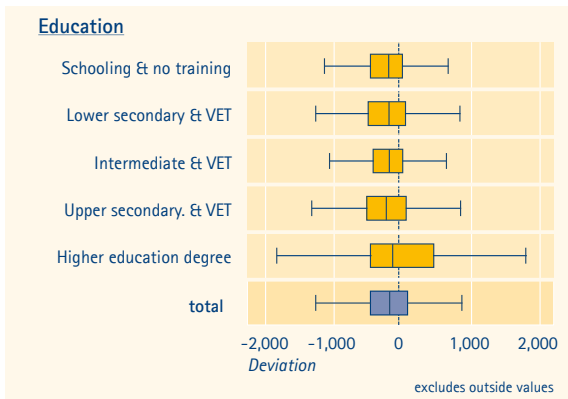
Table: First comparison of reported and administrative income

(N= 3.042)	mean	s.d.	min	max
Administrative income	3,118	1,066	1,217	6,057
Reported income	2,991	1,223	1,218	28,000

- *Dependent variable for bivariate analyses:* Difference between reported and administrative monthly gross income (Deviation: reported - administrative income)

Bivariate results: respondents

- Respondents with higher education degree show highest deviation in both directions
- Below that level of education very similar deviations



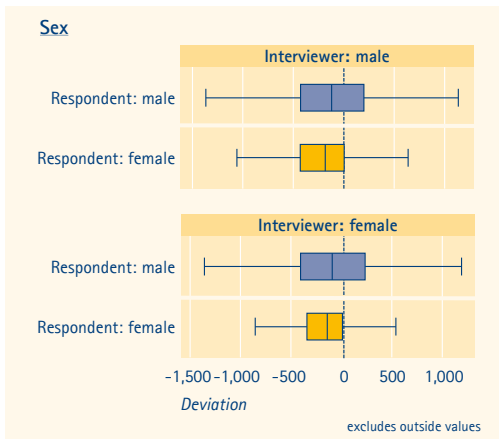
Bivariate results: interviewers

- Interviewers' experience only weakly affects report accuracy
- Least experienced interviewers produce highest deviation



Bivariate results: interaction of characteristics

- Interviewers' sex not relevant for report accuracy
- Male respondents vary more in report accuracy



- Tables show results from logit regression.
- Dependent variable: binary variable indicating whether absolute difference is above one standard deviation of administrative income

Results of multivariate regression II

Respondent	coef	s.e.
Female (ref.: male)	-0.623 ^{***}	(0.183)
Aged 30-49 (ref.: below 30)	0.655 ^{**}	(0.258)
Aged 50 and older	0.902 ^{***}	(0.257)
Born in East Germany (ref.: West)	-0.354 [*]	(0.203)
Born abroad	-0.193	(0.250)
Lower secondary & VET (ref.: no VET)	-0.084	(0.350)
Intermediate & VET	-0.190	(0.358)
Upper secondary & VET	0.276	(0.371)
Higher education degree	0.455	(0.342)
Constant	-3.015 ^{***}	(0.495)
N:		2,973

^{*} p<0.10, ^{**} p<0.05, ^{***} p<0.01

Results of multivariate regression III

Interviewer	coef	s.e.
Female (ref.: male)	-0.074	(0.153)
Aged 30-49 (ref.: below 30)	-0.119	(0.232)
Aged 50-65	-0.138	(0.223)
Aged older than 65	0.257	(0.335)
Intermediate (ref.: lower secondary)	0.301	(0.314)
Upper secondary	0.111	(0.269)
Exp.: 2-3 years (ref.: below 2 years)	0.002	(0.255)
Exp.: 4-5 years	-0.211	(0.246)
Exp.: 6 or more years	0.088	(0.266)
Running no. of interview per wave	0.001	(0.002)
pseudo R ²	0.0349	

* p<0.10, ** p<0.05, *** p<0.01

Source: NEPS Starting Cohort 6 data linked to administrative data of the IAB; robust standard errors in parentheses based on 315 interviewers as clusters

- On average, rather small deviation of reported income from administrative income
- Descriptive evidence shows some variation of deviation across subgroups
- Women report more accurately, corroborating H1
- Deviation by educational level contradicts H2
- Preliminary multivariate results hint at almost negligible influence of interviewer characteristics, though descriptive results support H3

Further analyses will:

- rely on the final data set and profit from higher number of observations
- consider the absolute value of income as an additional explanatory variable
- include interaction terms between characteristics of respondents and interviewers to measure similarity (and to tackle H4)

Thank you for your attention!

Manfred Antoni

manfred.antoni@iab.de

Basha Vicari

basha.vicari@iab.de

Daniel Bela

daniel.bela@lifbi.de

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Overview of IAB data

