Mode Effects in Measures of Subjective Wellbeing

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① MOTIVATION

- Increasing demand for data on wellbeing.
- Debate around the best way to define, measure, collect and analyse the information related to wellbeing.
- Certain level of agreement: availability of data related to wellbeing, specially from surveys.
- Surveys face challenges to obtain good quality data, for example declining response rates and new survey designs are used (e.g. mixed mode surveys).

② PREVIOUS FINDINGS

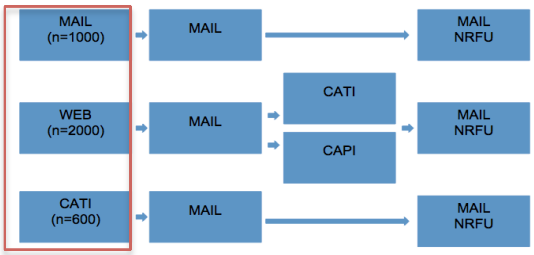
- Mode of data collection influences the way people answer: e.g. people tend to present themselves is a favourable way when an interviewer is present (de Leeuw et al. 2008), often referred to as 'mode effects'.
- Measurement differences are found across wellbeing surveys that have been carried out in different modes of data collection → implications for the comparison of estimates across surveys (Conti & Pudney 2011).
- **Individual circumstances** (e.g. not being Swiss) + **survey design** (e.g. telephone as mode of data collection) have an impact on the **quality of the data**: probability of being selected, motivation to respond, etc. (Groves et al. 2009).
- Challenge: to distinguish when distribution differences are due to differences in respondent characteristics (**selection effects**) or to the fact that people answer differently to different modes (**mode effects**) (Lugtig 2011; Vannieuwenhuyze & Loosveldt 2013).

③ QUESTIONS

- Are observed differences between different modes samples due to measurement effects or to selection effects?
- Is it possible that subjective wellbeing is overestimated in telephone surveys?

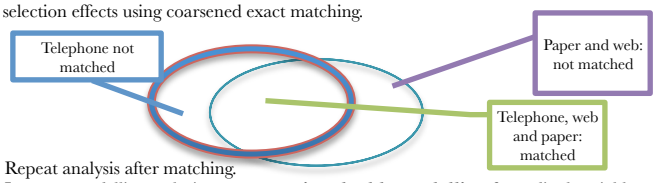
④ DATA

- **Mixed mode experiment** implemented by LIVES and FORS in 2011-2012.
- 3919 individuals, living in the French speaking part of Switzerland were chosen through simple random sampling.
- Sampling frame provides socio-demographic information.
- 25 minute questionnaire, very similar for all modes.
- Parallel (first phase) and sequential (for nonrespondents) mixed mode.



⑤ ANALYTICAL APPROACH

- Identify potential selection effects for the different modes: by comparing the composition of the different samples (responding samples for different modes and gross sample).
- Examine 14 chosen variables that measure personal wellbeing to find out whether they are potentially **sensitive to mode** of data collection: OLS and logistic regressions.
- **Balance** different mode **samples**' to make them comparable and disentangle mode and selection effects using coarsened exact matching.



- Repeat analysis after matching.
- Improve modelling technique: **proportional odds modelling** for ordinal variables.

⑥ RESULTS

- There are **differences** in the distribution of responses to some measures of **wellbeing for the different modes**.
- Differences between web and paper are due to **selection effects**: different types of people respond to different modes of data collection.
- Differences between web and paper compared to telephone are due to selection and **mode effects** on measurement.
- The means of the variables that measure '**optimism**' (5 category agree/disagree), '**life satisfaction**' and '**happiness**' (10 point scales) are significantly higher in telephone surveys.
- Respondents choose **extreme categories** when answering by **telephone,** causing overestimation of subjective wellbeing in this mode.

⑦ CONCLUSIONS

- **Overall, there are not many significant differences**
- **Negative mode effects** that can decrease the accuracy of the estimates: using **telephone** as one of the modes **overestimates** subjective wellbeing.
- **Positive selection effects** from mixing from mixing modes in some cases by improving representativity as get different types of respondents to answer: combining **web** and **paper** improves representativity.

⑧ NEXT STEPS

- Would mode effects prevail when adding new covariates use for coarsened exact matching?
- Will other mode differences be detected when implementing proportional odds modelling?
- Do mode effects affect the relationship between the variables and the conclusions of substantive research on wellbeing?

References:
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